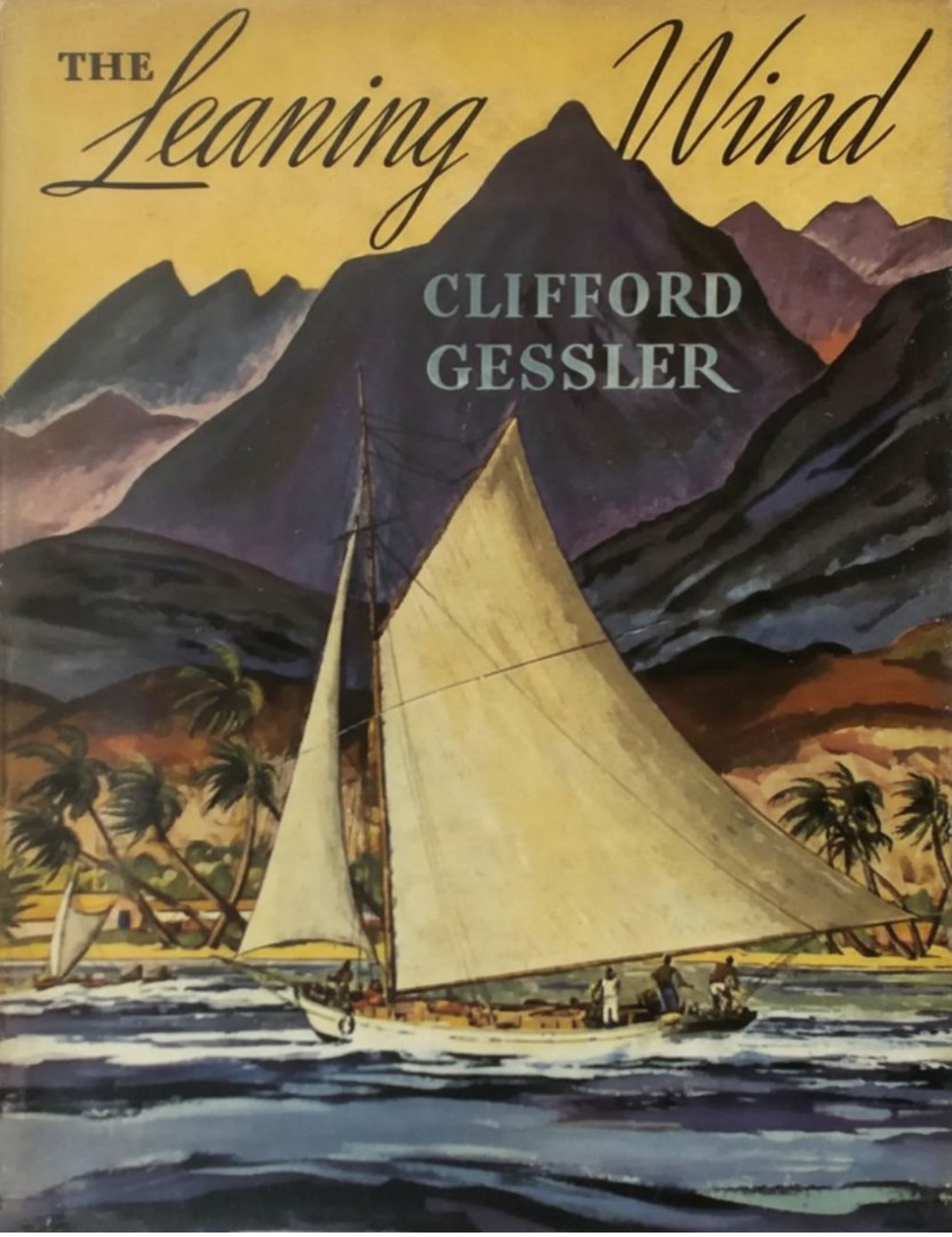
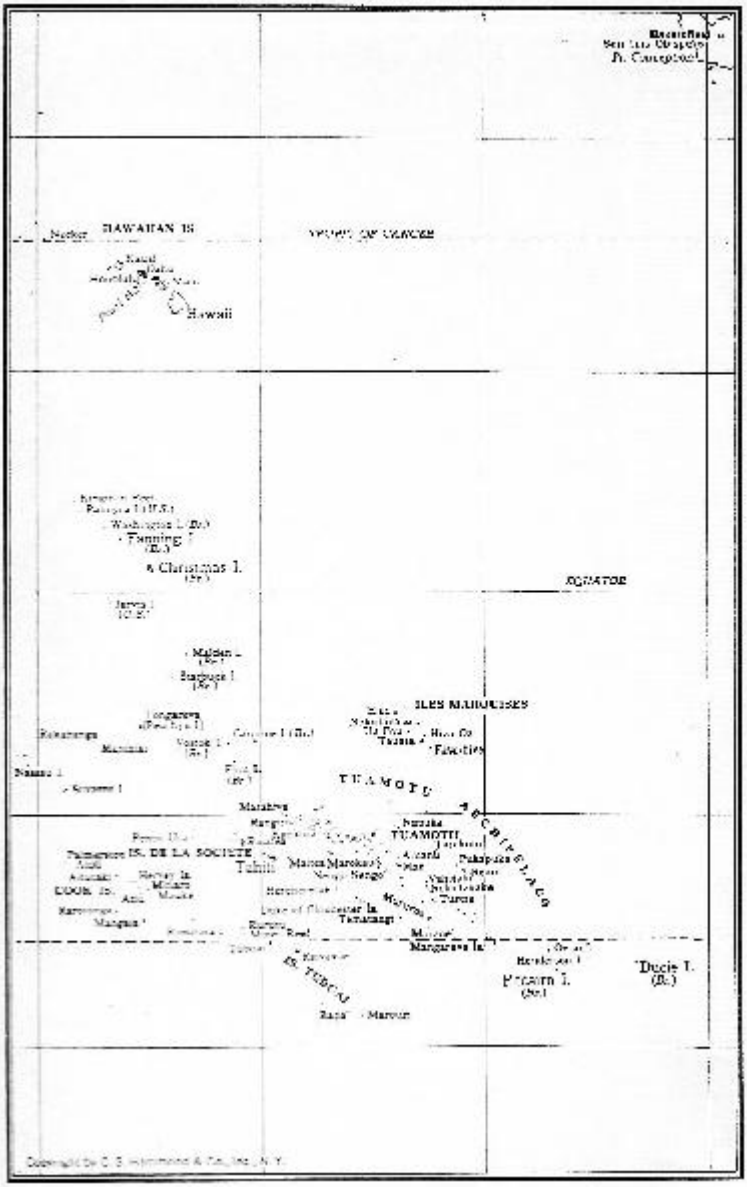
THE *Leaning Wind*

CLIFFORD GESSLER

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(Br.)

The *Islander* in the Isles Under the Wind; native canoes along side

The Leaning Wind

by

CLIFFORD GESSLER

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"The Rikitea wind leans on the land."
-SOUTHEAST POLYNESIAN SONG

"And the Source chanted: "I lean upon the winds, that they may blow.' "
-TUAMOTUAN CREATION CHANT

THIS is the story of a voyage, mainly by sampan, in the South Pacific, In R*oad My Body Goes* (published by the John Day Company in New York and under title *The Dangerous Islands*, by Michael Joseph in London) I told of a part of that voyage and of the life of "Keneti" Emory the ethnologist and me among the kindly Polynesians of Tepuka, in the Tuamotu Islands. It remains to recall our further wanderings among other South Pacific islands. In telling this story I am indebted to the records of the Bishop Museum in verifying and expanding my own notes and memories of the voyage.

CLIFFORD GESSLER

Berkeley, California

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Illustrations

The *Islander* in the Isles Under the Wind; native canoes along side

Landing in the Tuamotu. The canoe is drawn over the reef.

One of the last surviving "sewn ships." Seagoing craft, its lines much modified from the ancient pattern, still in use at Vahitahi, Tuamotu Islands.

"The Navel of the Land," this spot is called by the inhabitants of a low island visited by the expedition. Shrunken remains of the interior lagoon at Tepoto.

A landing from the *Islander* on a coral island.

Deep pools of shade lay boldly patterned and velvet dark. Main street at Tepuka, Tuamotu Islands.

Ancient stream-lined Tuamoutan house. The pandanus tree furnishes the leaves that are the building material.

At Vahitahi, ancient rites still live. Spear drill, in ceremonial dress of coconut leaves.

"Haul on the rope of Tane, haul," chanted the natives as they dragged the *Tiare Tahiti* up the beach at Vahitahi.

A Tuamotuan child. Background shows house construction of panels of woven coconut leaves.

Polynesian youth: daughter and niece of the chief of Tepuka in the Tuamotu Islands.

The *Islander* and the *Tiare Tahiti* on the marine railway at Fareute, Papeete.

"Bubbles," aboard the *Islander*.

View from the *Islander's* anchorage at Moorea.

Deep in the interior of Moorea we came upon the stones of an ancient temple.

They gave us drinking-nuts on Moorea.

Views like this rewarded grueling climbs in quest of plants, insects, and land mollusks. Looking southwest by south from the west ridge of Mount Turi, island of Huahine.

Haapu, the village on stilts, Huahine Island.

The village of Haavai, on Huahine.

The village of Vaitape, Borabora.

Chief and family at Borabora.

Aboard the sampan, those were days of sun. Hauling in a tuna over the stern, near Christmas Island.

The Leaning Wind

1

Course 170 South-Southeast

"GREETINGS to you, Pari!

"It is I, Maono Arai, who write.

"I have heard a rumor that there is war in the white men's country, and this is my thought:

"Come, you and Keneti, to visit us again at Tepuka, for here in our country there is peace."

The letter has been long on the way and it has come far: from the outer fringe of the Dangerous Islands by some small infrequent sailing vessel to Tahiti and thence by a guarded and roundabout route to the Pacific coast. It is written in a Polynesian tongue, and the message seems to come from another world.

Another world indeed it is. Maono's notions of political geography are somewhat vague. The two coral atolls of which he is chief are historically a part of French Oceania, owing at least a nominal allegiance to a country on the other side of a world that is both bigger and smaller than Chief Maono Arai can imagine. He thinks of the white men's country as a large island, somewhat like Tahiti. He knows about Tahiti. He went there once on an official mission - weeks on the way and months on the voyage back. The white men's country, that fabulous land of strange magic and of incomprehensibly warring tribes, is somewhere beyond Tahiti.

Of course we can't accept his invitation. Nevertheless, there is merit in the chief's suggestion. Truly enough, there is war in the white men's country, and in many countries of the brown men as well. Had Maono been aware of the world-wide scope of the "rumored" hostilities, he might have expected any morning to find his own islands swallowed up by a battle zone. For they lie between Tahiti and the Marquesas, both of which have strategic value, being situated across the supply route between the United States and the southwest Pacific.

Let us do whatever part is required of us here, but in the hours off duty, when relaxation fortifies morale and rebuilds strength for the next task, let us, in our minds, respond to Maono's welcome. For it brings back

those many months of voyaging we did make to fifty-odd islands scattered over a route of nearly ten thousand miles of the Pacific. That ocean has become a war zone since, but it is pleasant to remember those islands as lands of peace.

As I read Maono's words, again in memory the sampan's motor throbs and growls, shaking the ship from bow to stern. In a far island harbor the sailing cutter strains at her moorings, and in still more remote lagoons native canoes lift mat-woven sails. The sacred star-roads of the Polynesian discoverers glitter, beckoning, over the Night-Blue Sea of Kiwa and of Uli that lies beneath the unclosing eye of the Dark Hawk of Heaven. And on an all but unknown atoll a song drifts into the salt-clean evening air:

Tera, tera hoki, i te taetae rekareka....

There, there, go there
for the pleasant sport, the pastime:
the juggling, the jolly ball-tossing,
the body gliding swiftly on the wave.

There, there, go there
for the twining of fragrant ear-rings
rolled from the fern that
spreads in the green forest.

Go there, with love!

We left Honolulu at the ebb of a mid-April afternoon, with a following sea and the terns crying over us in the arching dusk as the *Islander* pointed her stubborn bow to the course posted in the plunging pilot-house: 170 degrees south-southeast.

The *Islander*, née *Myojin Maru*, was a sampan as the term is understood in Honolulu: a craft built on oriental lines but propelled by a stout diesel motor - no yacht for luxury, but chosen for adaptability to her purpose in dangerous and ill-charted seas. She had been engaged by the Bishop Museum for a survey of Polynesian ethnology and some branches of natural science in islands south and east of Tahiti.

In this expedition I occupied a somewhat ambiguous rôle. Having obtained permission to accompany the party, I was signed on, like the scientists, as a member of the crew and, like the crew, as a volunteer assistant to the scientists.

Our route led from Honolulu to Fanning Island, then southward to Tahiti, which was to be the starting point for our real adventures. Thence we fanned out through the Tuamotu Islands, southeast to the Gambiers, to Pitcairn, and outlying islands; thence southwesterly to Rapa, which stands alone in the sea where the chill creeps up out of the frozen south;

northwesterly from there through the Austral Islands, and back to Tahiti. Thence through the Isles Under the Wind and up among the sparsely scattered equatorial atolls to Honolulu.

It will not be necessary to adhere to strict chronology or strict continuity, even were it feasible or convenient to do so. It doesn't: matter that we were not all on the same island at the same time or that some of us back-tracked here and there or shuttled from island to island aboard the expedition's secondary ship, the forty-foot sailing cutter *Tiare Tahiti*, or on copra schooners that sailed irregularly from Papeete among the obscure atolls of that unfrequented sea, or how at our meetings in port or in sea-watches under the stars we shared the memories of those voyages until with repeated discussion the experience of one became the experience of all.

For one of the first things one learns in those latitudes is the relative unimportance of time. Time indeed went with us at sea, in the tinkling of the ship's bell every half hour and the rhythmic changing of the "watch" in the engine room and at the wheel. But ashore, on many islands, time virtually ceased to exist. Two of us lived for months where the only timepiece was a battered clock on the wall of a Chinese store. Its hands pointed perpetually to half past three in the afternoon. How did we know it was afternoon? Because that's the kind of country it was - like the fabled laud visited by the much-traveled Odysseus where "it seemed always afternoon." My own watch, which I had worn at sailing, out of habit, soon acquired the contagion. It stopped, also at half past three, and refused to tick again. Nor did we miss it after we had become accustomed to the island life. In a country where time is measured, if at all, by the visible progress of the sun, the procession of the stars, and the rhythm of the tides, one becomes somewhat ashamed of our habitual slavery to a metal pointer weaving around a dial.

Nor, for that matter, where days are so much alike, need it be of great concern what date of the month it is, or what year. The natives used to ask us, but that was just to make conversation. They didn't really care.

This story is, then, a synthesis of a number of sub-voyages in one long and varied cruise. There exists, too, a different kind of synthesis, a crystallization of a few of the significant phases of that experience, set on paper in the course of the voyage for my shipmates, so that when the grinding years blunt recollection we may yet keep in our memories something of the feeling of those days and nights that were to leave us always a little different for having known them. Every line represents some moment of that voyage, or one of the salty comments of my sailor comrades.

THE VOYAGE*

"Don't let them fool you," said the tough old sailor:
The sea's nothing but a lot of hard, dirty work .... '
Hands rough and black with hauling on the anchor chain;
faces burnt with wind and sun, grimy with the engine-stain
sloshing seas on slippery decks, wet and cold and wearied through-
still we met the wind and rain with singing and with laughter:
we knew how to take it; avast with those who shirk!

Night by night the Southern Cross burned higher overhead;
day by day the flying fishes flagged us as they fled;
green lagoons lit signal lights against the mounting clouds
and the red-rimmed coral 1slands glowed with dawn....
"Don't let them fool you," said the gruff old sailor:
"The sea takes everything you've got,
and laughs to see it gone."

"A pipe's like a woman," said the hard old sailor:
"No two alike, and never one is twice the same ....
Sleeping in the focs'I, lungs foul with engine-fume,
standing watch six on, six off, tugging at the wheel;
dancing naked on the deck to feel the blessed sting of rain,
fishing from the stern and shooting sharks that followed after;
bucking seas that shook her ribs and drenched us as they came.

Sly she dragged her anchor in the long lagoon, a windy night;
hours we fought in blinding rain and thunder and the flashing light;
we hauled her off the reef to the chanting of the savages-
the king came out with all his men and moved her with a song ....
"A ship's like a woman," said the scarred old sailor:
"Watch her every minute, or she's bound to do you wrong."

"Three things are good," said the rough old sailor:
"Women, rum, tobacco - and the rest is wasted breath .... "
Creeping up at night, in the mist, on lonely islands,
listening, with engine stopped, for surf along the reef;
casting lights alongside to guess which way the current lay,
harking for the shrill cries of sea-birds flying over-
down among the low isles, playing tag with Death!

And there were nights ashore: the palms all drenched in silver,
ghost-fire dripping, glowing, from the oars, rowing in;
laughing girls to dance with, in fragrant wreaths of jasmine,
gay guitars and singing, and lips that called us friend ....
"Just three things are good," said the bluff old sailor:
"A pipe, and a glass, and a girl at the run's end."

* Reproduced from *Poetry: A Magazine of Verse* and the *Stepladder's* collection of prize poems in the Beulah May Sea Poem Competition.

And so, on the fifth day out of Honolulu, Alec, the mate, clinging to

the mast with his legs and one arm and shading his eyes with the other hand, like a sailor in a picture book, called out, "*Tera te fenua!*" ("Land ho!") Looking ahead, we saw the yellow-green reflection which the lagoon casts on the sky over Fanning Island, which Alec's Polynesian ancestors had named Tapuaerangi, Footprint of Heaven.

A little later the island appeared as a blur on the horizon, and as we approached, the tips of coconut palms began to etch themselves against the sky. I thought of that scene later when the story was told of a famished aviator, who, sighting such an island after days of drifting on a life raft, cried out: "I see a corn field!" Slowly the land rose into view, as if emerging from the sea to sun itself like some monster of the depths, recalling the ancient Polynesian figure of speech, "Maui fished up the islands."

Soon we could see the narrow, steep beach, the green forest behind it, and the tidy buildings of the cable station at Whalers' Anchorage, where we awaited official permission to enter the "port." A boat came out, manned by smartly uniformed Gilbert Islanders who rowed witch military precision, bearing the British medical officer to grant us "pratique." It was but a twenty-minute run around the end of the island from there to the lagoon entrance of English Harbor, site of the copra station. For Fanning is an "open" atoll, with a navigable channel from the sea into the inner water. Nine miles long that central lagoon stretches, many-colored beneath the sun, and . around it the sandy coral "motu" - segments of the atoll - lie low and palm-crowned, a wreath of land. Mist hid the farther shores as we entered the lagoon.

We anchored close to the spreading tropical-style homes of the copra overseers. Gilbertese laborers in bright red *riri* (somewhat like the garment known to movie-goers as "sarong") gathered on the shore to watch our arrival, and the British managers of the plantation trooped aboard to welcome us, along with Hugh Greig, labor superintendent and head of the sole remaining family of the colonists from Manihiki and Rakahanga whom William Greig led to the island in 1857.

We drank with the hearty Britons; we reveled in their cool shower baths, and some of us slept ashore in their comfortable, airy houses, on wide beds protected with mosquito nets and with gaudy Gilbertese riri as coverlets. The air was warm and moist, gently stirred by the breeze from the sea; we could hear the surf booming on the outer beach and the small waves lapping on the inner shores, the cries of night-flying sea birds, and the clashing of the huge claws of land crabs as they fought over fallen coconuts in the groves.

Island dwellers though we all were, this was for several of us our first "low island," and we marveled at its beauty - accustomed as we had been,

in the insular pride of high islanders, to regard an atoll as an inferior kind of country. We were to visit many atolls and to know some of them very well indeed, but I shall always remember the exquisite surprise of delicately blending colors as morning parted the twany and gold fronds over the Footprint of Heaven.

New and lovely and strange, our days at Fanning passed like a dream. We strolled through the village of the Gilbertese copra-cutters, partaking of shellfish with them and watching their dances as the crude drums throbbed and the chant wailed under the palms. We fished in the lagoon, and tramped through the muddy sand of the islets to gather specimens for the scientists. There were minor repairs to be made aboard ship, and we took on a supply of the slightly brackish water which the islanders pumped by windmill from the shallow sub-soil.

It was a tranquil and comfortable life they lived, if an isolated one, we thought. Fanning was a happy blend of South Sea atmosphere and the comforts of civilization. Gardens - if struggling ones - had been laid out around the managers' houses; water had been piped to shower rooms and kitchens, and they were lit by electricity generated by a power plant fed with oil. There was even refrigeration. But the Britons were lonely, pathetically eager for companionship, for new faces, new stories, and late news. They looked forward eagerly to the quarterly arrival of the freighter with mail and magazines and supplies; they talked longingly of the time when they could return to England. And the Gilbertese, though the island was much like their own, hoarded the canned food which was a part of their wage, for the day when their terms of service would expire and they could go back to their homes at Tarawa or Maiana or Makin.

And after all, we reflected, this life was artificial. In accepting modern comforts, Fanning had sacrificed primitive self-sufficiency. When the copra trade fell away, the electric current would cease to flow over the wires, the houses would stand empty, as did those at Washington Island a few miles away, and the sea birds and land crabs - the real owners of Fanning - would reassert their sway.

With sturdy Hugh Greig piloting in the bow, we sped in the launch up the green and yellow and purple lagoon to the cable station, which had been restored since a German raider disabled it in the First World War. In the grove near it, we dragged away the fallen fronds, the gray husks, and the cast-off crab shells to uncover stone tombs of Tongan sea-rovers who had colonized the island some five centuries earlier and who had vanished before Captain Edmund Fanning, in the ship *Betsy*, discovered it for the white men's world in 1798. A few brittle fragments of bone, a few crumbling fish hooks and ornaments of pearl shell, were all that remained of those far-venturing chiefs. And afterward, sitting upon those ancient

stones, we stared at the yellow fringe of dusk, saying to one another: "We are young here. We are young in this country, and the world is very old."

Of afternoons, Keneti and I sat in the mat-floored patio which Teanau Greig, descendant of chiefs, preferred to the carpeted living room of Hugh Greig's house, as she chanted softly the name-songs of her ancestors or heroic legends of her people, illustrating them with deft diagrams made by winding a strip of hau bark around her fingers:

"Fanaunau, fanaunau,
poteava, poteava.... "

"So Maui kicked with his feet and pressed with his knees, and separated the two lands, Manihiki and Rakahanga."

Teanau's door was always open, and beside it hung always a coconut-leaf basket full of specially selected drinking-coconuts, pungent and cool and sweet, deeply refreshing after days at sea. Some of us over-indulged in them the first few days. One soon becomes adjusted to the natural beverage of the atolls, but drinking too much coconut water after a period of abstinence, or without previous experience, has much the same effect as an excess of fresh fruit.

"*E vahine ra e Merio e*," chanted Teanau. It was a lament for her relative, drowned when the captain of the schooner *Arahora* tried to sail out through the pass of Palmerston Island, impiously and thus unwisely, on a Sunday. The ship was wrecked; Merio's husband swam ashore, but Merio remained with her children and perished.

"You were a flower from Tepaeroa,
planted, sprouted ....
Your wooden house is decorated with flowers,
like the tassel of your belt ....
You were a learned woman,
playing the harmonica,
knowing reading and writing ....
I am thankful for having known you,
though the money is all gone.
You have been taken by the Father Above."

We were to hear that chant again, months later in a far corner of the Tuamotu, altered somewhat in its journeyings from mouth to mouth and from island to island but still recognizable as the same, and to mar el at its diffusion over thousands of miles of sea.

So passed three days, until the Sunday when we hauled anchor and sailed, in a series of squalls, through a heavily rolling sea for Tahiti. All aboard were wet and cold but the afterdeck was piled high with drinking-nuts and in the cabin lay a gunny-sack full of bottles of good New Zealand

beer, the gift of our British hosts. There was no refrigeration aboard, but we fancied we could cool the beer by trailing it in the sea, astern. This proved erroneous. When we opened the bottles, they were not only still warm, but, having been churned by the sea, the contents spouted to the ceiling.

The cook was disabled by his return to sea after the soft days ashore. I supped on raw fish in the galley, then went below to change my wet clothes and returned to the deck to seek a comparatively sheltered spot. Enoka, the Hawaiian sailor, with a broad grin, pointed to the changed course, saying: "I tell you, we sleep good to-night." We were now driving before the wind, instead of plunging into it. Noting an alarming fall of the barometer, the captain was putting back into the shelter of Fanning lagoon.

Our call at Fanning thus stretched into nearly a fortnight as we awaited favorable conditions for the next leg of the voyage. Even there, we felt the force of the weather. On the evening of the next day, about half of us were ashore, at Hugh Greig's house in the old Manihikian settlement of Turefara. Guitars were sounding, Hugh's daughters were singing and dancing a medley of Hawaiian, Tahitian, and Gilbertese-Samoan steps, and under that hospitable roof we didn't realize that a storm was blowing up outside.

Suddenly the long roar of the *Islander's* whistle bellowed through the night, seeming to come from far away, almost drowned out by the rising wind of which we had not hitherto been conscious. A moment later, Jessup, one of the copra men, staggered in, dripping with rain. "Your ship!" he gasped. "She's in trouble "

We rushed out into the confused swirling roar of the storm. The night was very dark. Guided by the insistent lament of the ship's whistle and by the lightning that flashed through the grove, we ran over the uneven ground toward the lagoon. The wind buffeted us, even in the shelter of the trees, which were bending - almost double, it seemed - beneath its force. Rain blinded, choked us. Coconuts whizzed past our heads, bounced alongside us as we ran. We shivered with the cold - for even in that latitude, less than four degrees from the Equator, the wind chilled us as it blew through our drenched clothes.

Somehow, we came to the shore. The *Islander* was ablaze with lights, where she lay, almost on her side, like a stranded whale. We could see what had happened. The ship had originally been moored by shore lines, at bow and stern, bent around trees, in addition to the anchor sunk into the bottom of the lagoon. The anchor had dragged, one of the shore lines had broken, but the other still held. Thus as the *Islander* drifted, the remaining line had swung her inshore against a sand bar some fifty yards from her

previous position, saving her from driving on the reef near the entrance of the lagoon.

There was no time to think of sharks or of the violent current that raced toward the sea. We plunged into the dark water, which felt gratefully warm after the chill of the wind, and clambered up the tilted side, grasping the hands that our shipmates aboard thrust out to help us. Shedding our wet shirts for warmth, we hauled on the nearest lines.

Captain Bill's great voice bellowed through the storm. Out in the lagoon, Hugh Greig's power boat buzzed and roared, as his crew of Gilbertese bent a line to the *Islander*. A squad of them climbed aboard; a vivid flash of lightning lit up a row of them at either side of me, chanting as they hauled on a line with me: "*Ta pu e! Ta pu e!*"

It was a scene of apparent confusion, but directed to definite purpose by the skill of our captain and Hugh Greig. The wind snatched at orders and replies shouted in English, Hawaiian, Tahitian, and Gilbertese. Bare feet thudded on the wet deck. The power boat backed and circled and strained forward. Heaving, the *Islander* slowly righted, moved free. This was the crucial moment. The current gripped her, sucking her toward the reef.

But then the throb of her own motor jabbed into the night. Yoshio and Enoka, working frantically in the engine room, had restored power, and by lucky chance the propeller was not fouled. Slowly the Islander gained headway, moving into the deep water farther up the lagoon, to a new anchorage with a borrowed "hook" and moorings with stronger lines.

After that, we began to feel like old South Sea hands. We had had our introduction to the equatorial Pacific. But it was several more days before we left the low shores of Fanning behind us again and drove southward for a week through the vast, empty sea toward Tahiti.

The sampan lurched through deepening twilight. Beneath her prow the obscure microscopic life-swarms of ocean threw up traceries of cold, living fire. Above her ready swung the strange constellations of the south. And against her sides surged unceasingly the intimate whispering clamor of the infinite anonymous multitudes of the waves.

For half a year and more these few cramped feet of timbers were to be our home. These, and the age-crumbled lava or the mingled coral and sand of islands that lay, in numerable and various, below earth's bulging waist.

The steady throb of the diesel already had drummed itself into our blood until it merged with our own life rhythm; we were conscious of it, as of our own hearts, only when we missed the accustomed regularity of its beat. An iron heart, a great robot heart beating, beating .... This, and the soft clang of the bell that hung forward of the pilot house, calling us from the cozy stuffiness of the focs'l to the watch on deck - these set the tempo

of our sea-borne life.

New landfalls beckoned under the notched horizon of the Pacific. Islands - more islands than we could remember, more than we could count - waited in new latitudes be neath the impassive southern stars. The earth of some of them was to become as familiar to our feet as the smooth pavements of our own city, the tower-blooming island city we had left behind.

The black disc whirled on the small turntable of the portable phonograph; the needle scratched out the familiar melody, the well-remembered words, that had new meaning for us now:

Auhea wale hoi oe
i ke kai hawanawana nei

Where are you now
upon the whispering sea ....

2

The Navel of God

PEOPLE ask what life was like on a plunging bit of painted wood between the twin vastnesses of sky and sea. It was a lean, hard life, in the cramped focs'! and on the equally cramped deck of the *Islander*; lean and hard ashore on islands without the comforts and conveniences which our people have become accustomed to consider an essential part of daily living. But from such experience one derives a somewhat altered notion of comfort and convenience. As we told one another often, it was a good life. We were in direct contact with reality: our safety, such slight degree of comfort as we could command, and at times existence itself depended upon orderly organization of that life, on alertness and skill and ability to adjust our selves to the conditions we found.

We were thirteen when we left Honolulu: five scientists, four professional sailors, two volunteer crew members, and two occupying a border zone overlapping these classifications. Others awaited us in Tahiti or were to join the party later. Thirteen, and at times several more on a ship whose eighty-nine feet of length, proportionate beam, and gross tonnage of seventy-five afforded little space after the supplies had been stowed in the holds and overflowed upon the narrow deck. All were men: the clubwomen who inquire, after nearly every talk on the subject, whether our wives accompanied us, can have no conception of the conditions of living aboard a sampan at sea or on such islands as many of those we visited. Some wives proposed to ac company the expedition, but the museum authorities forbade them, on the grounds of lack of room, possible danger, and inevitable interference with the work.

Let us meet these men of science and of the sea and those who were, for the time, a little of both.

The commander of the expedition was Dr. C. Montague Cooke, Jr., malacologist of the Bishop Museum. Dr. Cooke had spent his life in the study of land mollusks, commonly known as snails, and had become a world authority in that branch of science. Mellow with maturity of years, his quiet humor never failed. He not only endured hardship; he appeared

to enjoy it. Things couldn't get too tough for Dr. Cooke.

He was assisted in malacology by Donald Anderson - a merry young man, bubbling with laughter and anecdote, intensely loyal to his comrades and his chief.

Dr. Harold St. John, botanist of the museum and of the University of Hawaii, was perhaps the hardest worker among us. Field botany requires carrying heavy loads of specimens and hours of labor in sorting and preserving them. Quiet and composed, tireless in the field, light of tread and quick of eye as a forest Indian, he was also the most reserved member of the company. There may be something in the study of botany which makes for such a temperament. If man, as the Polynesians say, is the younger brother of the animals, then the plants, like the gods, are the elder brothers of both. Years of association with the deliberate, implacable lives of the plants as, like the beans sown by Conrad Aiken's "Festus," they

> "climb the colossal, savage stairs of the sunlight,
> heartless and dreamless, cruel, superbly slow"*

must impart a certain austerity, a degree of detachment from the concerns of men.

*Quoted from *The Pilgrimage of Festus* by permission of Charles Scribner's Sons.

Misfortune bore most heavily upon his young assistant, Raymond Fosberg, who bore the accidents, sometimes disabling, of the voyage and the field with an equanimity rivaling St. John's own. Tall and large of frame, Fosberg was somewhat embarrassed by the interest he unintentionally aroused among the young ladies of the islands - accentuated, perhaps, by his achievement of growing the blackest and most luxuriant beard in the entire party.

My closest associate was Dr. Kenneth P. Emory, known among the islands by the native approximation to his given name, "Keneti." As ethnologist of the Bishop Museum, he had studied the ways and traditions of Polynesians until he seemed spiritually a Polynesian himself. He had a deep sympathy with that people, a fellow feeling that often goes farther in that branch of science than mere factual and theoretical knowledge, with which he was also amply equipped. Without losing his scientific exactness, he could think like a Polynesian.

Master of the ship was Captain William Greig Anderson, a stout descendant of European and Polynesian sea rovers, who could combine modern scientific navigation with the seagoing instinct that had guided his ancestors, the chiefs of Manihiki, in their voyaging throughout the central Pacific. A massive, powerful man like those chiefs, accustomed to command; born on Washington Island near the Equator, and brought up

from childhood to sail those waters. He was bluff and decisive, soft-spoken at ordinary times but capable of violence when aroused. He knew the Pacific like his own back yard, which indeed it had been.

Alec Anderson, his brother, had sailed with him from boyhood. Alec, too, seemed at times more Polynesian than European, with his ready command of the Tahitian language and of Polynesian and Micronesian dances and songs, and his perennial good nature.

Enos Lyons, usually addressed as "Enoka," and Yoshio Kondo shared the responsibility of keeping the engine shoving the *Islander* through the sea at its calculated economical cruising speed of eight and nine-tenths knots. Enola was of Hawaiian and European descent, steady and reliable, a superb seaman, a lover of jollity and song. His conversation was one of the joys of the voyage. It is a pity that most of his anecdotes and comments were not adapted to the printed page. It is but a sadly inadequate example to report his statement, as he swept and mopped the deck after we had taken aboard a parcel of live chickens: "I tell you fellows one damn' good t'ing we got no cows on dis ship."

Yoshio, an American of Japanese ancestry, had sailed with the commercial fishing fleet from which the *Islander* had been drawn, and he knew all about sampans. Accustomed to the hard life aboard the "aku boats" that ply out of Honolulu, he considered his lot aboard the *Islander* as one of comparative luxury. As it turned out, the voyage was the means of his escape from the tuna fleet, for he showed such interest and ingenuity in collecting 'land shells" that Dr. Cooke made him an assistant malacologist on the staff of the museum.

The dictum, "no women aboard," interfered with the plans of Captain Anderson to ship as cook his wife, Thelma who had sailed with him on many a voyage. Piqued at the prohibition, he vowed that he would hire the first applicant who appeared. Thus it came about that we acquired as cook one Ernest Fernandez, whose sole qualification was that be wanted to make the trip. Ernest had never been to sea and had never cooked. He had occasion to regret the impulse, for, inept as his cooking often was, he suffered more than we. He had had no idea of what the sea could do to his galley and to him. For us, eating was an adventure; we seldom could guess in advance just what luck Ernest might have had. The captain relished the situation; in emergency, he did his own cooking. But Ernest learned much, and indeed was so eager to be of use that he helped on many a job besides his own.

Sam Wight was a volunteer seaman. Member of an old Island family and a nephew of Dr. Cooke, he shared with Alec the responsibilities of mate and assiduously practised navigation in an attempt to make his calculations agree with those of the captain. Sam's ambition was to have a

sampan of his own and go voyaging through the Pacific, and he regarded this trip as training. He eventually became the steward of the expedition, bargaining with Chinese merchants for pork and rice and bread as our supplies diminished.

Alexander MacDonald, known as "Mac," was, like my self, a newspaperman and a volunteer. Sturdy and willing, with a fondness for the water and for spearing fish, and with an alert interest in everything he saw, he was good material for the expedition.

On his way from Yale to join us in Tahiti was Dr. Peter H. Buck, "Te Rangi Hiroa," distinguished ethnologist who was to become director of the Bishop Museum. Of British and Maori descent, a former member of the New Zealand parliament and cabinet and a medical officer in the First World War, he was eminently fitted for the career he had chosen as a student and interpreter of Polynesian life. He could go among Polynesians as one of them. Indeed, his fame had spread far among them. Landing on an island in a part of the Pacific he had not visited before, he addressed a native in Polynesian without introducing himself, and the man responded: "Welcome, Te Rangi Hiroa!" In his dual character, knowing the Polynesians from the inside as well as the outside, he has kept his scientific temperament, rejecting exaggerations and possible errors that have gained vogue among some members of the profession.

Already in Tahiti, where he had lived for years, was "Ua" J. Frank Simson, ethnologist and Polynesian linguist. We used to say he knew more about the language than the Polynesians themselves did. In a quarter century of research and comparison, he had reconstructed what he believed to be the "Proco-Polynesian" language from which the dialects of the many islands are derived. Of tremendous energy, driving himself to work at his notes and manuscripts when his temperature was at fever height his enthusiasm had led him to advance theories which became highly controversial in the profession. Argument raged between him and other ethnologists as to whether the Tuamotuans anciently had had a supreme god called Kio or Kiho. I refrained from taking sides, since both parties to the dispute were my friends. The layman can scarcely appreciate the degree of *odium theologicum* that is involved in these matters.

"Zimmy" was also in Tahiti-Elwood Zimmerman, a young entomologist from the University of California, quick and active and eager, of boundless energy in the pursuit of certain insects and with an equally profound indifference to other species. The Hawaiian "pidgin" in which the rest of us conversed in moments of relaxation was a source of perpetual amusement and wonder to Zimmy, who persevered until he had perfected himself in that primitive but expressive dialect.

Our deck crew was also to be augmented in the lands below the Line.

Tane, a big, hulking Tahitian recommended by J. Norman Hall, joined us as seaman and assistant cook, and Katiu, a native of Reao in the Tuamotu, as a sailor and "anchor diver" - the man who goes down to the bottom to spy out the position of the anchor and direct its extrication from coral.

Nor should one forget Bubbles, the ship's mascot. Bubbles was a dog of undetermined ancestry, with a wistful expression and a melancholy disposition, whom Sam Wight dubbed "the dumbest dog in the Pacific." She accompanied us throughout the voyage, and had adventures of her own.

At Tahiti, too, lay our auxiliary ship, the *Tiare Tahiti*, cutter-rigged and operating under sail, using her rather feeble motor only to get in and out of harbors. Her owner and navigator was Bob Burrell, a New Englander who had run away from a boys' academy and shipped to European, African, and Asiatic ports, eventually settling in Tahiti. Being an alien in that land, he could not legally command an inter-island vessel; hence the officially recognized skipper was Martin Nagle, a native of the Austral Islands and a French citizen. Ever cautious, "Matini", as he was called, never went ashore at islands which lacked proper harbors. In the Tuamotu, he would stay aboard for weeks or months at a time. The *Tiare Tahiti* was manned by two jolly Tahitians, Tehio and Tau, and at Tepuka, Bob added Tupu, a native of that island, to the crew.

But how fared we thirteen who were on our way to join them? The *Islander* bucked and tossed as her two hundred steel horses drove her through the obstinate sea. Waves crashed over the bow or the quarter, drenching forlorn voyagers who nursed the pangs of seasickness on our only "deck chairs" - cases of fuel. On deck there was scarcely room to walk or sit, and the fumes of the engine coiled through the meager space below. The drinking water tasted of fuel oil; the food, of gasoline. At night the pitching motion as waves lifted the sharp bow high and then ran back under the flattened bottom, tossed us into the air, to drop us back into the wooden bunks with a jarring thud. Yet we slept soundly, despite the giant tropical cockroaches that nibbled our ears and toes, despite the engine-reek in the focs'l and the rain or sea-spray that beat between the chinks of the improvised superstructure until the scientists, in their cabin, aft, lay in pools of water.

These are commonplaces of such voyaging, and we were far better off than the seamen of Honolulu's commercial fishing fleet. Most of us soon became adjusted to the conditions; the ship became our home. Only the botanists continued to be relatively unfortunate. They never grew quite hardened to the motion of the ship, and remained in their bunks much of the time throughout our seagoing days reviving only when the *Islander* anchored in some sheltered spot and they could go ashore. Once on land,

they were hardier than any of us. They led the way through the densest jungles; they scaled the most forbidding peaks, and they carried the heaviest loads.

There were four watches of six hours each, over which the four professional sailors presided, with some assistance from the volunteers. Enoka and Yoshio nursed the engine. Ernest retrieved his pots and pans patiently, time after time, from the deck, whither they had been hurled by the tossing of the ship, to concoct unpredictable messes from the nearest available tins. The rest had comparatively little to do at sea, save to man the wheel for a few hours or help clean up the ship when approaching a port.

At raising or lowering anchor, however, every one worked. Since the *Islander* was not equipped with the apparatus that some of those aboard called a "wench," these operations were performed by hand. When the captain called "all hands," there was a rush to don shoes, lest the heavy links of the chain bruise or crush unprotected toes. Normally, most of us went barefoot aboard ship-partly for comfort and partly for safety. Bare feet slip less easily on a wet deck.

Costume at sea by day consisted of shorts or dungarees and nothing else, with the addition of a sweater in the evening. Even in those warm latitudes the night breeze can be cold. As we penetrated deeper among the islands, some found the two-yard wrap-around called a *pareu*, the most convenient and comfortable garment in sunlight hours and as a sleeping-robe by night.

Use of fresh water was restricted to one quart a day, for all purposes, for each man. Since sea water is not a very satisfactory cleansing agent, all who were not on duty would rush to the exposed parts of the deck at the first sign of a squall, hoping to enjoy a fresh-water shower. Sometimes the squall missed us and the sky would look down on a company of disappointed voyagers smeared with soap and no water.

At night the phosphorescent ghost-fire curled about the bow; new constellations rose overhead, and flying fish plopped on the deck, to give us a pleasant variation from the standard menu of alternate corned beef, pale salmon such as is normally fed to cats, and leathery "salt horse."

There were two gasoline-driven outboard motor boats for cruising in shallow lagoons, and a small skiff propelled by oars. Folded away in the forepeak was a sail, but the stubby, cracked mast of the *Islander*, installed to support the antenna for a wireless apparatus that seldom worked, could not have supported canvas in a wind and was so placed that sailing would scarcely have been possible.

As we sat watching the sea go by or the constellations marching overhead, we spoke of the Polynesians who had followed those stars over

that sea centuries before European seamen dared venture out of sight of their own shores; the sewn ships out of Asia and the isles between, that had traced the sacred star-paths toward the rising sun.

They were distant kin to us, some said, descended from an ancestry collateral with ours, though mixed with other elements in the course of their migrations. Crowded out of their ancient land, "Havaiki," by invasion, overpopulation, or whatever cause, they had moved through the East Indies from island to island and beyond. In the fifth century A.D., it was calculated, some had arrived in Hawaii. In the twelfth century or thereabout, others had come thither from the new Havaiki in the Society Islands, our own point of departure for more remote lands. And, meanwhile, they had spread out in all directions, peopling innumerable islands of the Pacific.

In twin-hulled ships hollowed out of logs or built of planks sewn together with coconut fiber, they had sailed for weeks at a time, charting their way by the "courses" of the stars and by many a folk-lore trick of navigation, some of which we ourselves were to employ. At least once, it was said in those conversations on the deck of the *Islander*, they drove to the eastern rim of the Pacific, whence they brought back the *kumara*, the sweet potato which was a staple food in Inca-ruled Peru, and left in exchange for it the bottle-gourd of the Marquesas. Centuries before Columbus, they were, if these theories are sound, discoverers of America.

Thus we spoke, while the valleyed sea lay all about us, the same yet ever changing face. Southward day after day and night after night without sighting another ship, or land. South on the track of the mat-sailed ships that had plied this sea eight centuries and more before us. From a point on the shore of Kahoolawe, in the Hawaiian Islands which still bears the name The Road to Tahiti, those ancient voyagers used to sail away from the North Scar until it dipped into the sea. Then they knew they were at the Navel of Wakea - the Equator. And the White Stars that Spring from the Root of the World, which we interlopers call the Southern Cross, guided them until they could descry the peculiarly piled clouds that cluster about the burnt-out volcanic peaks of Tahiti and the Isles Under the Wind.

For us, those were days in the sun, with the porpoises rolling ahead and the dark banners of shark fins alongside; and deep spangled nights cool with wind: at the wheel, two hands and one bare foot gripping the spokes, swinging the sharp tall prow against the obstinate push of waves, holding her hard and true where the Cross of the South bloomed like a flower on a stalk and the clouds shaped a long-beaked Polynesian god swallowing the oval moon.

Thus we crossed the Navel of Wakea. Only the sea birds know that place, and the spirits of sailing gods, ancestral voyagers who followed

those birds to the sun-drenched ancient islands and established there the foundations of the land.

CHART OF THE PACIFIC*

This paper flatness, yellow-isled and neat,
with parallel, meridian complete,
is not the Pacific. Here is not the sting
of blown spume hurtling in the face, the ring
of anchor-links against the chocks, the slosh
surging on tilted deck, the phosphor wash
streaming astern, or the small voice of bells
tinkling the sea's half-hours, between the swells.
The sea is no dead thing of deftly drawn
latitudes, longitudes, but live as dawn
and cruel as absolute zero; it is kind
as food, and as indifferent as the stars
that weave cold-patterned webs between the spars.

" Reprinted by courtesy of *Harper's Magazine*.

Landing in the Tuamotu. The canoe is drawn over the reef.

One of the last surviving "sewn ships." Seagoing craft, its lines much modified from the ancient pattern, still in use at Vahitahi, Tuamotu Islands.

3

Fragrant Threshold

TAHITI was only the threshold of our venturing. It was a fragrant one: scent of jasmine and of South Sea gardenia drifted out to us on the shore breeze as we lay off Papeete in a May morning, vainly dangling lines over the side in an effort to lure fish while we waited for daylight that we might enter the port. Ashore, the rich aroma of vanilla drying in warehouses along the waterfront mingled with the musty, acrid scent of copra and the breath of streets banked with growing flowers.

We were impatient to step across that threshold to the new lands that waited under the horizon and at the back of the wind. We were to return to Tahiti and to know better those friendly streets, green-tunneling country roads, wild slippery mountains, and the kindred but less exploited islands near-by that lie "under the wind." But for the time being we hurriedly refueled, reprovisioned, took on some of our scientific colleagues who had been waiting there for us, and the two native crewmen, and pressed on to the lands that were to give us our most abiding memories of that cruise; islands where the deep, sure rhythm of Polynesian life was to steady the pulses of our blood until, in an inward sense, we might never, perhaps, slip wholly back into the feverish tempo of the world that we had left.

So in a few days we were on our way again, east and northeast into the Tuamotu. We called briefly at Meetia, - a small but mountainous isle, abandoned by its former inhabitants but still lush with neglected plantations and bearing ruins of ancient temple and village sites. Another day at Anaa - our first stop in the Tuamotu - eleven coral islets around a huge lagoon, with a sleepy village, sacks of copra piled on the shore, and a spear-tossing competition in which the natives pierced, with amazing accuracy, a coconut on a pole some thirty feet high, from a distance of about sixty feet. On an overnight run from Anaa between the islands of Faaite and Tahanea, only the power of our diesel, thrown quickly into reverse, saved us from crashing on a reef. Next morning we lay beside the long, rose-red shore of Katiu - a bare and lonely land, stripped by hurricanes while we pumped bilges. And one more day's and night's

voyaging brought us to the small, round, green button of Tepoto and the red-bordered, tawny-and-green wreath of Tepuka around its many-colored, shellmound-isleted lagoon beyond which, at the narrow passes to the sea, surf tosses up tall plumes of spray.

The story of these islands will not be repeated here, nor that of the months Keneti and I spent as guests of their people. But I may be permitted to recall very briefly those lands that are "circled by the white tern" - the two Lands of the Puka Trees, happiest of those we came to know.

We slept there on mats of pandanus leaves laid on a floor of pebbles in a house of coconut fronds, and the salt air of heaven blew through the woven walls. Those islands are so far from the world that even in Tahiti the legend had grown up (as we learned, without foundation) that their people were of a different race and spoke an unknown tongue. Isolation and a blessed poverty had spared them. the fate of many other Polynesian countries. They were still hardy and clean; there was children's laughter in their streets, and singing, and a kindliness that warmed us to a new appreciation of human values and the dignity of man.

They were so happy, and so poor. I have never since thrown away a tin can or an empty bottle without a twinge of guilt, remembering that country where such an article, or a bent nail, is precious, a treasure which can not be replaced out of the resources of the land.

There, day was a fruit in the hand, and the night was deep with song. Time had not harried that place, where no wheel had ever turned. Life's fever was cooled in the breeze from the sea or the lagoon. Day unto night and night unto day breathed peace.

LATITUDE 14:09 SOUTH*

You ask me what it was like to be in that country
and I answer: The wind leaned always on the land
out of the sea, and life looked toward the sea.
It was good, there, to walk into morning
fresh as that wind: the tall, sea-leaning fronds
clashing aloft, and the clean new sunlight
washing the sanded street. And in that country
the tide of noon flowed gently up between
the houses plaited of leaves. Deep pools of shade
lay boldly-patterned and velvet-dark; the mats
were kind to our bodies as the afternoon
ebbed gently. And at dark the fires of husk
glowed in the coral dooryards; the low moon
hung melon-colored, and the night was sown with stars.

Then dancing feet stirred pebbled sand,
and all the songs were love songs.

It was good as drink, to rest on the smooth mat
when the cool-fingered evening crept
softly out of the sea.
There was peace in that far country
where wind of night was a long caress to the sleeper-
and all the stars over that country were kind.

* Reproduced by permission of the *American Mercury*

And still the farther lands beckoned, and we answered. The *Tiare Tahiti* spread white sails; the whaleboats wallowed in the swell between the rose-red margins of atolls and the squat bulk of copra schooners; the *Islander* herself lurched through the sea southward, seeking those lands.

A night and a day to Fangatau, whose empty sunlight falls upon age-mellowed walls and develops the sweetest drinking-nuts in the southeast Pacific, but whose people dwindle because their fertility has waned. A night more to the great isle of Hao. All about us, but seldom visible at a distance of more than ten miles, lay the atolls of the Tuamotu.

There are nearly eighty of them, scattered over a distance of almost a thousand miles from a point northerly of Tahiti to a position far to the southeast. They are little more than reefs, built by tiny marine organisms on shoal that may be the summits of submerged mountains. Toiling blindly, the polyps raised them there, as we toil blindly, building and planting we know not what to flower remotely under an unknown sky.

Land exists, low and precarious, only where wind and wave have deposited the debris of ocean - shells, driftwood, bits of broken coral, sand, decaying animal and vegetable matter-upon the reef just below the sheenful skin of the sea. That hard earth rings like metal underfoot; the sea claws at the red fringe of the land and falls back, snarling, to claw again. Once in a generation or two the Wind that Overturns the Land sweeps over the Dangerous Islands, wielding great hammers of water, tearing away houses and trees, scouring away the very soil, down to the naked bones of the land.

Such are the sea-born lands, the coral islands. The Tuamotu are much like Fanning, without that island's modern improvements. The sea around them is almost always very deep. Off many of them, there is no anchorage. Waves pile up steep green crests and crash on the low shore. That outer shore is often smoothly rounding and deep pink, though the rest of the coral maybe of a dirty white or a dull gray. I have been told that the reddish color is imparted by other marine organisms. Behind this old-rose margin lies a jumbled mass of gray tilted slabs of torn-up beach, a conglomerate of bits of coral, broken shells, and sand. A little farther inland the sand lies yellow and deep, throwing off a blinding glare under the nearly vertical sun.

A hundred yards or so toward the interior, begins the forest. First, sturdy shrubs of scaevola, tournefortia, and bristling, stilt-propped pandanus. Within, the palms rise fifty to eighty feet in the air, their scarred boles dull gray, their fronds tawny and green, the nuts shading from green through yellow and red to brown.

Coconut palms are there usually because they have been planted. An argument raged aboard ship as to whether coconuts washed ashore by the sea would germinate without human aid. Some evidence was quoted that in favorable conditions they sometimes do, but most of the coconut palms in the South Pacific were planted deliberately, either for their direct usefulness to the natives or in response to the demand in our own world for coconut oil to be used in cosmetics, margarine, candy, and other products.

The ground is hard and stony, commonly a mixture of coral and sand, though on several islands we visited, the soil had been sluiced away by storms which had strewn a mass of broken, weather-blackened branches of coral over the islets. Upon it and upon the streets, which usually are covered with sand carried by natives from the beach, the shadows of the palms form sharp patterns of light and shade.

Even in this unpromising soil, some vegetation grows: a fiber-yielding plant of the nettle family; the "scurvy grass" which seamen from whalers used to gather to relieve the illness caused by deficiencies in the old-time diet at sea; an edible portulaca; a coarse fern. Usually some part of the island still bears the indigenous forest: pandanus, huge puka (Pisonia) trees, the crimson-flowering ngatae, the medicinal horahora shrub, and such other vegetation as will thrive in low-island conditions. Sometimes, in the more favored areas, where such a forest has deposited a thin layer of humus, struggling plantations have been set out papayas, occasionally an inferior variety of taro in trenches, perhaps a brave attempt at patches of sweet potatoes or yams or squash. Sometimes shiploads of soil have been imported from the high islands, and one may see a sickly looking, wind-burned banana plant or a gnarled breadfruit tree. Once a group of natives led me with evident pride to a forlorn and yellowed pineapple.

From the inner shore the scene is often of enchanting beauty. The lagoon lies, gently rippled, in a palette of glowing colors: shading from yellow to green to blue to deep purple as the light is reflected from sandy or coral bottom and from varying depths. Here and there, especially near the villages, mounds of sun-bleached tridacna shells form tiny islets within the lagoon. The natives, gathering the edible shellfish for generation after generation, have extracted the meat on the spot and tossed the heavy shells into the shallows. Along the reefs, just under water, cling the live tridacnas, each exposing a wavy brilliant streak of blue or pink or

purple or red between the massive scalloped halves of the shell.

If the island is inhabited, canoes are drawn up on the outer and inner beaches: some, of the modern Tahitian type, built of planks and U-shaped, with outriggers attached by a hollow-pyramid type of construction; others, the cruder *haveke* model, thin-walled, irregularly shaped dugouts, stabilized by a cruder float. In the more "advanced" islands, such as Anaa and Hao, houses are of wood or coral plaster, with corrugated iron roofs; elsewhere, as at Tepuka and Tepoto, they are woven of palm fronds and thatched with palm and pandanus. In both cases, they usually are set on a foundation of blocks of coral two or three feet high, filled in with pebbles. Here and there one may still find a house of the ancient Tuamotuan type, woven of pandanus leaves, hugging the ground and designed in streamlined fashion, with rounded ends, looking somewhat like an overturned clothes-basket. It is less spacious and comfortable than the high, rectangular coconut-leaf construction, but more durable. An old man told me that his house, which was so built, was the only one on his island that had withstood the last hurricane.

On such islands some five thousand Tuamotuans live no such life of ease as has often been depicted in fiction of the South Sea. That life is hard and precarious, at the mercy of the gods of ocean. The land yields sparsely; most human sustenance must come from the sea. A few pigs, a few chickens roam beneath the palms, a reserve supply for emergency or for occasions of ceremonial feasting. The daily fare is fish and coconuts and the scanty fruits or vegetables that can be nurtured in the grudging soil. There is little or no preservation of food, but there is no waste. The Tuamotuan, in his natural state, is frugal. Copra - the meat of the coconut - yields a small income which buys his few luxuries: tobacco, matches, his few foreign-made clothes or fabrics, his few metal tools.

That life is poor in material possessions, but rich in spirit. Tranquil and unhurried, the community moves through its daily round of fishing, cutting and drying copra, weaving mats, invoking the ancestral spirits that the next day's fishing may be fruitful - and once a week idling in pious boredom on the foreign Sunday after attending the mission church.

On some islands which had been temporarily more prosperous through abundance of copra or of pearl shell, we found that the old close-to-nature ways had become some what vitiated. People lived in foreign-style houses, or the nearest approach to them that they could manage, with brass beds - in which they never slept - for ostentation, and ate canned corned beef, canned salmon, and rice, bought on credit from Chinese merchants. But the prosperous days had passed: the pearl trade had languished and copra was bringing only a fraction of its former price. The foreign style houses were weather-battered and decaying, some still unfinished; credit

at the Chinese stores was reaching limit, and more and more Tuamotuans were going back the hard and healthy old life. For Fangatau, perhaps, was too late. Foreign food, foreign housing, and foreign disease had destroyed the vitality of the people. As Fari the sage of that land, told me sadly, "*Aita fanau*" ("there are no births").

The copra schooners were coming less and less often; several of them lay rotting at anchor in Papeete harbor. As imported articles wore out, old crafts were beginning to be revived on islands where they had been stored in the memories of the elders. When the fragile Chinese matches ceased to come in the schooners, the fire-plow of ngeongeo wood was taken down from the shelf over the doorway and the old fire chant quavered to the time of moving arm above the tinder of coconut husk:

> Stroke, stroke my fire,
> stroke briskly, stroke in rhythm ....
> O bird, stepping lightly,
> stepping landward, stepping seaward,
> arise, leap over,
> leaping leftward, leaping rightward,
> arise, my bird of flame!

"The Navel of the Land," this spot is called by the inhabitants of a low island visited by the expedition. Shrunken remains of the interior lagoon at Tepoto.

A landing from the *Islander* (at right) on a coral island.

Deep pools of shade lay boldly patterned and velvet dark. Main street at Tepuka, Tuamotu Islands.

Ancient stream-lined Tuamoutan house. The pandanus tree (specimen at left) furnishes the leaves that are the building material.

4

The King of the Cannibal Islands

HAO WAS of particular interest for me because of its association with Moeava, who ruled over all this part of the Pacific some twenty generations ago. We had heard of him at several islands. I knew a man at Tepuka who bore his name and who was reputed to be one of his descendants. Moeava was a chief who got around.

I'm not sure, but the name suggests the interpretation, "he who drinks so much 'ava that he falls asleep and forgets everything." If so, this in itself was a mark of distinction, for only a very wealthy and powerful chief could afford that much 'ava, especially in the Tuamotu, where it is scarce.

He was born at Takaroa, but his father was a man from Hao, and Moeava himself spent considerable time there when he wasn't busy voyaging and conquering. He built a ship - one of those double ships with two connected hulls sewn together with coconut fiber out of pieces of wood and pitched with tree-gum. It had a sail woven of pandanus leaves, and a small thatched cabin on its deck for the chief. This kind of ship, called *pahi*, was the sort of craft in which much of the Pacific was first explored. Some modern mariners have doubted whether a vessel so constructed would hold together and be manageable. But a few years ago two Frenchmen, who had twice been shipwrecked in Chinese junks, built a ship as nearly like a Polynesian *pahi* as they could without a reliable model, and sailed it from Honolulu to Cannes.

Moeava's *pahi* was called *Murihenua*. In it, the natives say, he visited all the islands of the Tuamotu and conquered virtually all of them that were worth conquering. In the course of this voyaging he heard of Huarei.

Huarei was supreme chiefess of Tepuka. She was the daughter of the gods of the Darkness and of Maruia, the first ancestress, who herself was born "of the moaning sea and of the bones of chiefs" - and hence Huarei was doubly divine. According to the tale, she was the most beautiful woman in the world - that is, the world that Moeava knew.

The best was none too good for Moeava. He sailed from Hao for

Tepuka. He arrived off the island in a glowing South Sea dawn, and tradition preserves a fragment of the chant he sang as his ship approached the old-rose margin of that land:

> "*E hinano tui ranga koe*
> *no Moeava iroto i Tepuka Maruia*."
>
> "You are a wreath of pandanus flowers
> for Moeava at Marnia's Land of the Puka Trees."

Huarei was sitting on the marae or temple place called Rangihoa, where, of all women, she alone could go. Rangihoa stood near the sea, close to the present landing place. From her seat by the altar-stone, she saw his ship from afar and heard his chant as he came near. Tradition says she rebuffed him at first, taunting him with his cannibalism, for the people of Tepuka assert that they have never in ulged in that practice. There is some reason to believe them, for as far as their history can be traced, they have been too poor and too remote from other inhabited lands to have enemies, and one eats only one's enemies, one doesn't eat one's friends.

Apparently, however, Huarei's initial rejection of her suitor was only maidenly coquetry, or his wooing over came her objections. For she did not let the matter of a little ceremonial cannibalism interfere permanently with romance. For that's what it was. Polynesians seldom if ever ate people just because they were hungry, although in the Tuamotu, in wartime, there may have been an element of thrift involved. The frugal Tuamotuans can't bear to waste anything. Cannibalism was incidental to warfare and involved with magic. You killed your enemy, and you ate him, thereby absorbing his strength and courage and his mana or spiritual power. Anyhow, there can be no more thorough way of clinching a victory than for the conqueror to digest his conquest.

Moeava and Huarei lived together for some years at Tepuka, and their son was Kehauri, who became a great chief. I seem to have heard somewhere that the gentle influence of Huarei led Moeava to give up his savage practices, but he still had one more campaign to face before peace settled down over his islands.

Moeava had another family at Takaroa. He had adopted four sons and a daughter of his elder brother, after their father had been killed in the wars. So, eventually Moeava, Huarei, and Kehauri all embarked in the *Murihemua* for Takaroa. And there they ran into family difficulties. Tangihia, the eldest adopted son, was chief and high priest the great marae Rangifaoa on Takaroa. A turtle was sacrificed with ceremony and the head, which was symbolically the most sacred part, was divided among the highest chiefs - all but young Kehauri, MMoeava's son who had been

born at Tepuka.

"If you want to eat of the head of a turtle," said Tangihia, somewhat inconsiderately, "go to your own marae at Tepuka."

Kehauri, offended at this slight to his prestige, declare that that was just what he would do, and at once. His parents tried to calm him, explaining that the honor belonged to Tangihia, as the eldest son of the family. But the young prince would not be consoled. So Moeava, with Huarei and Kehauri, set sail again for Tepuka. He should have stayed at Takaroa to safeguard his interests. For eighteen of his vassal tribes, who no doubt had long been preparing for a coup, chose this time to take advantage of his absence. They had organized a powerful coalition. Among the chiefs involved were those of Rangiroa, Kaukura, Kauehi, Apataki, Fakarava, Makemo, Anaa - including some of the largest and most important islands of the Tuamotu - and lands farther away that can no longer be identified, called Marama.

The fleet descended upon Takaroa; the rebel spearmen stormed over the island, slaughtering Moeava's people. Among those who fell were three of Moeava's adopted sons. The youngest, Reipu, and his sister Tutapuhoa, fled "to the part of Takaroa which was called the land of Tematahoa, by the deep sea, to the place called Matiti of the Cool Shade, at the corner of the marae Rangifaoa."

The fugitives climbed a karauri tree which was covered by the kainonga, a creeping vine with reddish leaves, and hid among the foliage. The chant says they named the tree Raumihi-Leaves of Sorrow. And they chanted together, to console themselves and the spirits of the dead:

> "Alas for Tangihia, for Parepare, for Rongo-tama -
> and we lie hidden among the leaves."

One of the eighteen tribes took no part in the battle, although its chief, Tautu, and his daughter, Rangahua, witnessed the massacre. The tale doesn't tell why they remained neutral, but it may be surmised that Tautu, although loyal to Moeava, didn't feel strong enough to fight the seventeen other tribes. There is a hunt that his daughter cherished a romantic interest in the young princes of Moeava's house. She searched the battlefield for their bodies, identifying them by their tattooing: the lizard, sign of Tangihia's royal rank; the pareke, distinction of valor, for Parepare; the tavaro emblem for Rongo-tama. None of the bodies bore the design of the sacred image, which belonged to Reipu. So she knew he had escaped. Rangahua mourned for the dead, but kept in her heart the thought of the living.

The victors, as was the custom, cooked and ate the bodies of the slain, and the fires of the underground ovens burned for many days. A great pit

in the ground is still shown at Takaroa as the oven where Tangihia was cooked. Tautu and his clan refused to partake of the feast.

As the island quieted down, Reipu and his sister descended from the tree, gathered tridaena in the lagoon for food and returned to their hiding place. Meanwhile Rangahua, daughter of the friendly chief, while cruising in her canoe, saw a white tern perched on a branch of a karauri tree and landed to catch it for a pet. As she approached, she caught sight of a young man, and recognized his tattooing as that of Reipu. She befriended him and they became sweethearts.

Reipu feared that when Moeava learned of the massacre, the innocent might suffer with the guilty, so he urged Rangahua, her father, and all their clan to leave Takaroa, while he remained to await Moeava's arrival. They heeded his advice and went to Motu-tapu, an islet near Hikueru. "If our child is a boy," Reipu told her, "name him Tama kura-taketake, Red Child of the White Tern" - and so in deed it came to pass.

It would be reasonable to suppose that Rangahua's father sent messengers to Moeava, but the Polynesian poets who composed the historical chant say nothing of this. Their version, if less plausible, is more beautiful. Reipu caught a white tern - the bird of the atolls that is also called fairy tern, or love bird - and chanted to it:

> "Fly, white tern, to Moeava and to Huarei,
> woman of great excellence and beauty;
> tell them the white terns of Takaroa have fallen!"

Moeava, with Huarei, Kehauri, and a strong party of warriors, was on his way. Voyages of several hundred miles were not commonly made in one jump, if there were intervening islands where food and water could be replenished and the men could have a breathing-space ashore. Moeava stopped at Makemo. Some of the rebels who had taken part in the raid on Takaroa were at that island. A young man of Tepuka, who had sailed with Moeava went bathing near the village of Punaruku, and was taunted by these men.

"We have eaten you," they said. "Tangihia your chief is no more; we have cooked and devoured him."

The young man reported this to Kehauri, who wept at the news, despite his quarrel with his half-brother. His mother, Huarei, asked him why he wept, and when he told her, she informed Moeava. Moeava, the story relates, burst into tears and rolled upon the ground-meanwhile, like a good Polynesian, composing a chant of mourning.

To confirm the report, Moeava hid near the bathing place and listened to the young men's boastful conversation. Then he spun a stout cord, and tied it to a piece of wood. Next day he seized the men of the enemy party

and strung them on the cord like fish. Some he placed in his ship, others he dragged behind it, and so voyaged to Takaroa.

At sea he saw spirits flying over the water - the ghosts of the slain princes. "There are three," said the court sorcerer who was with him. "Three are dead, but one lives." Apparently the princess didn't count. The *Murihenua* passed over the reef near the hiding place of the survivors, and Reipu came aboard, weeping. The chant says the earth ovens in which the victims had been baked were still smoldering. Intoning a savage dirge, Moeava hurled his captives into the fires. Then he himself rolled on the embers until the fires were dead.

Recovering from the first shock of grief, Moeava rallied his fighting men and embarked on a campaign of vengeance. He hunted down his enemies, from island to island, throughout those seas. Wherever he overtook them he killed them, and brought all their lands securely under his rule.

And that's about the last we hear of Moeava. The epic ends, anticlimactically: "He lived quietly for the rest of his life at Takaroa and at Hao."

Another sanguinary memory of pre-European times in those islands that was retold over the fires of husks was the story of Honokura, prince of Tahiti, who led a punitive expedition against the Tuamotuans who had killed the young chief Tuihaa.

In his ship, the *Aere*, Honokura descended upon Raiatea, in the Isles Under the Wind, which the Tuamotuans had invaded. He routed them there, then pursued them to Makatea, where he killed the sea monster which guarded that island, and subdued the country. Thence he sailed to the isle of Talume, slew the great swordfish that guarded that land, and recovered the bones of Tuihaa from the marae.

Honokura and his party then went to Tepula, which was uninhabited at that time, to recuperate and to prepare for further battle. For they knew that the clans of the western Tuamotu were gathering to attack them. This was long ago, before the planting of coconuts had transformed the landscape of the atoll. The place was densely forested with puka and pandanus trees, among which Honokura and his warriors slept, where their sentinels might watch the ocean without being seen. They ate quantities of tridacna clams, which still abound in the lagoon. The chant asserts that Honokura swallowed the tridacna, shells and all - no mean feat, for the later inhabitants of the island used those shells for hammers and axes.

("If you don't believe this," warned the man who told the tale, "it's no use going on, for it's an important part of the story. If he hadn't swallowed the tridacna shells, he wouldn't have known how the battle was coming

out.")

Then this Polynesian Paul Bunyan fell asleep and, as is not surprising on such a diet, he dreamed. Awakening in the darkness, he chanted to his companions:

> "The warrior sleeps;
> his back is gnawed by cockroaches.
> In his sleep he is disquieted-
> it is a troubled evening,
> O my younger brothers!"

Sleeping again, Honokura dreamed a second time, and awakening toward morning, chanted:

> "Closing my eyes, I saw the ships -
> the long sharks eating the clouds,
> the outriggers cutting the waves"

and he named the ships and the enemy chiefs who were approaching.

"Let our hearts be of stone," he exhorted his men.

Nevertheless, they slept again until full daylight. Then, looking out from a pandanus thicket, they saw the hostile ships off the island, just as Honokura had seen them in his dream: the war fleet of all the western Tuamotu in battle array.

Honokura deployed his warriors in ambush, and then cast forth the tridacna shells which he had eaten, to draw an augury of the coming battle. Of the shells he had swallowed, some were pink and some white; those he cast forth were all pink. "It is a sign of victory," said Honokura.

Satisfied with this novel method of forecasting, he stepped out of the thicket to meet the enemy, and h met them with guile.

"Come ashore," he invited them, "and drink 'ava."

"It is good," they said among themselves. "When Honokura and his men are drunk with 'ava, we'll kill them all."

The narcotic 'ava doesn't grow at Tepuka. However as the teller of the tale explained, that shouldn't be allowed to spoil the story. Honokura could have brought it with him from Tahiti, or the enemy might have supposed that he had done so.

The Tuamotuans landed. Honokura told them to follow the trail inland in single file, so that they might be served more readily with the royal beverage.

The trail wound through thickets of pandanus, morinda, and other trees and shrubs, interspersed with open, sandy spaces. The Tuamotuans fell into Honokura's trap. Intending to disperse in the bushes after drinking, and then reassemble and fall upon the Tahitians, they were themselves

ambushed, a few at a time, killed, and their bodies hidden.

As the last squad of the enemy arrived, Honokura, exerting his magic power to grow suddenly to giant size, closed up the rear, holding aloft the huge spear that no other man could wield. These last Tuamotuans, as they marched inland, became suspicious when they found none of their comrades, and returned to the shore. There Honokura, rising up before them, slew right and left. A few escaped to the sea, and bent frantically to their paddles, striving to flee across the channel to Tepoto. Honokura caught up a huge block of coral and hurled it after them. It fell short, gouging a great hole in the reef. Whereupon Honokura plunged into the sea with his spear and over took the fugitives, smashing their boat and spearing them as they struggled in the water.

The print of Honokura's foot is embedded deep in the site of the marae at Takume, and a log of wood was long pointed out there as his spear. And the gap in the reef at Tepuka is the landing place of that island today.

5

Wind that Overturns the Land

ON A bright morning the *Islander* bucked a four-knot current into the big lagoon of Hao, Isle of Encircling Sky.

Seventy miles of reef and of narrow land enclose that lagoon. There were times, as the sampan glided across it to the village six miles or so from the entrance, when the low shores on either side were out of sight.

Bougainville, in 1768, named the island, from its shape, La Harpe. Cook, the next year, called it Bow Island, for the same reason. It is one of the few atolls into which scientists have dug to investigate their formation. Sir Edward Belcher, who was there with Captain Beechey of the *Blossom* in 1826, bored holes into the coral until the auger broke. All he found was coral and sand.

Later expeditions, better equipped, probed similarly at Funafuti, in the Ellice Islands: Professor Sollar, in 1896, drilled 105 feet, Professor David, a few years later, more than 1,100, and found coral all the way. I understand that even this arduous effort failed to settle the controversy as to whether it had been the sinking or rising of the land that had provided a place for the coral to grow at the depth of not more than about 150 feet at which it can live. To a layman, the most plausible theory seems to be that of R. A. Daly, who suggested that the atolls were formed in the glacial period. According to this theory, when the level of the oceans was reduced by the imprisonment of moisture in the glacial caps, the remaining sea wore down the summits of volcanic islands. As the ice caps melted, the sea rose and at the same time grew warmer. Thus at certain places the conditions were favorable for the growth of coral. It grew higher around the edges of the shoals, perhaps because food was more plentiful there, and thus formed the ring-shaped islands.

Hao looked to have been prosperous at one time. Many of its houses were of stone or of a plaster made of burned coral, with roofs of corrugated iron, less picturesquely "native" than thatch, but useful for collecting rain water, which was run into cisterns built above ground. Well water at Hao, we were told, is unwholesome, causing a rash. There are

plenty of coconuts, but a coconut cut young enough to drink makes no copra, and many of the thrifty islanders averred that they didn't like coconut water.

It may be well to clarify a distinction right here. What is commonly called, in our own country, "coconut milk" is not coconut milk at all. True coconut milk really looks like milk and has some of its properties. It is pressed out of the meat of a fresh ripe coconut; it is rich and creamy and can be used in coffee or with desserts, or frozen into ice cream. Coconut water is the thinner fluid that occupies the cavity within the nut. This fluid shrinks with age until in the mature nut there is only a cupful or so, with a not very agreeable taste. But the young, immature nut, at a certain stage in its growth, holds a pint or more of clear, sparkling, deliciously tangy liquid, often slightly carbonated, and that is coconut water. For several months I drank nothing else. At this stage the meat of the nut is a film of jelly-like consistency, which can be eaten with a spoon. A native knows just which nuts are most suitable for drinking, and just when they reach the proper age.

Similarly I am moved to enter a protest against the old fashioned but still common spelling "cocoanut." It must have originated by confusion with "cocoa," which represents an entirely different product and which is itself a corruption of "cacao."

Among the inhabited structures at Hao jutted roofless walls and fragments of shattered foundations. All the houses had once been destroyed in the hurricane of which we had already heard at other islands.

Matangi huri henua, the Wind that Overturns the Land, had done very nearly what its name implies. At Anaa we had seen the broken foundations of heavy stone walls - a church, a government house - and had been told that the soil, brought by ship from Tahiti, which had made Anaa one of the most fertile of the Tuamotu, had been washed away. At Tepuka our feet had grown accustomed to the heaped fragments of coral that had been ripped from the reef and strewn over the greater part of the island by the storm, while the sand that had been so kind to bare soles had been sluiced back into the sea.

In that storm, houses skimmed through the air like leaves; animals and human beings were blown into the sea or drowned by waves that surged over the land, or crushed by blocks of coral, torn from the reef, that hurtled across the island. No living thing could stand against the combined assault of the gods of water and of wind. The sea snatched at the islanders in the trees where they had climbed for refuge; the wind snapped off fronds and, with them, those who clung there. Some survivors told us they had escaped by sawing off the tops of palms to cheat the wind of its leverage, and roosting on the stumps. Estimates of the dead throughout the

Tuamotu ranged from hundreds into thousands, possibly because no authority was certain just what the total population had been.

All the islands in the storm's path suffered crushing blows, but the greatest loss of life was at Hikueru, where divers, traders, and the miscellaneous following of the pearling migration had gathered for the diving season. To avoid stripping the lagoons of pearl oysters and allow time for the species to replenish itself, it had been the custom to work the principal pearling islands in rotation, one each year. The gatherings that assembled at such times numbered sometimes as many as two thousand persons.

Men who had been at Hikueru when the gale struck told us it had come not entirely without warning. For days wind and rain had lashed the sea and waves had battered the shore. Captains of schooners riding off the island noted that the barometer fell rapidly.

Then one afternoon the sky darkened to almost the gloom of night and the wind rose to a velocity estimated at a hundred and fifty miles an hour. Sailing craft were blown out to sea or put out voluntarily to fight the storm in open water rather than risk being hurled upon the reef. People on shore clustered on the highest point of land, watching the great waves leaping ever higher.

Roofs and walls sailed through the air as the fury of the storm increased. Sheets of corrugated iron, of which temporary shops and other structures were built slashed murderously as they flew across the island like scattered cards. More than one victim was decapitated, survivors reported.

As the rising water torrented over the land, the natives climbed coconut trees - many of them only to be dashed to death as the wind twisted off the fronds. The church, bowled before a mass of water and uprooted coral, hurtled into one clump of trees, shattering it, with those who had refuged there.

Some never even reached the trees. "The water came up from the bottom through the land," said one. "They could no longer walk on the ground, but sank into it to their armpits, as in quicksand."

The survivors were mainly those who had cut off the tops of the palms into which they had climbed, or those whose trees had held fast. Even so, many could not hold on for all the hours the storm raged. More than one pair of numbed arms let go.

The tale was told of one woman who had been plucked out of a treetop by a monstrous wave and carried across the lagoon and many miles to sea. "Riding the back of the waves," as she described it - that is, swimming and floating and body-surfing - she remained all night in the water and was cast up at dawn on a reef fifteen miles away, among the bodies of her

friends and kinfolk and the débris of the storm.

Atea, chief of Hao, who was a boy of about fourteen at the time of the hurricane, had been at Hikueru with his father for that disastrous pearling season, along with six other members of the family and about a hundred neighbors.

"When we saw the waves coming higher and higher," he said, "my father tied a stout rope about a coconut tree and we all clung to it, rising and falling with the waves.

"As night came on, the storm grew worse. My father knew that not all of us could be saved. He and my elder brothers lifted me and my younger sister into the tree and tied us to it.

"The night was dark and cold. Rain and spray lashed us like whips. The tree quivered and strained until we were sick with the motion of it, as when one goes to sea on a schooner after a long time ashore. Even when we were out of water the wind sucked our breath away. We could breathe only when we pressed our faces to the tree.

"But we clung there all night, while waves clutched at our feet and leaped over us, beating our heads against the tree.

"People came in the morning - the gendarme and others - looking for survivors and counting the dead. The storm was over, then. But we were so stiff and cramped we couldn't untie ourselves or climb down. They had to lift us to the ground.

"At first there was no food, and no water to drink. Even the coconuts had been whirled away, and the wells were full of salt water and coral. But we lived, somehow. People cut the tender hearts out of the tips of fallen coconut trees, and dived into the lagoon for food that had been washed away from the stores. By and by ships came from Tahiti with food and clothes and took us home."

It was estimated that there had been twelve hundred people on Hikueru the night before the storm, and that only three hundred lived through it.

Hao is a pearl island, too, but pearling in all the islands had declined, sometime before our visit, because neither pearls nor shell brought the prices they once did. So the government had suspended organized diving throughout the Tuamotu, to conserve the supply while awaiting better times. A few natives still gathered a little shell. Small black pearls were sometimes found by children in an unattractive but edible shellfish at some islands, and the natives at some places traded small, misshapen pearls to us for perfume and canned corned beef. But pearling, as an organized business, had lapsed. Traders said it was partly because culture pearls had upset the market, but mainly because too many substitutes had been found for pearl shell.

Pearls themselves, indeed, had been only a by-product of the trade in shell. Estimates varied as to how many hundreds or thousands of oysters one had to open, on an average, before finding a pearl, but all agreed that diving for pearls alone would not pay.

The shell formerly was in demand for buttons, knife handles, jewel boxes, and many other articles in the manufacture of which synthetic mother-of-pearl or plastic later crowded out the genuine material. Tuamotuan pearl shell was once valued at $200 a ton. Fortunes were made in pearls, too - most often by shrewd traders rather than by the natives who braved sharks and octopi and trap-jawed tridacna to dive for them. Godeffroy & Co. once sent to Europe, in one shipment, $20,000 worth of Tuamotuan pearls.

Some of the more unscrupulous sea captains and traders used to steal pearls of exceptional quality from the "god houses" in which the relics of tribal ancestors were enshrined, or tempt chiefs to trade them for gin. The shell, too, attracted pirates. One, Captain Rugg, used to raid up and down the Tuamotu, seizing shell where it had been stored to await shipment. His business flourished until he made the error of firing on the U.S.S. *Dolphin*. He escaped temporarily, but was pursued and sunk by the U.S.S. *Porpoise*.

The main source of pearls and shell in the Tuamotu is a large, rough-coated, untidy-looking mollusk known to the trade as the black-lipped oyster. It is found in quantity only in certain lagoons where conditions are favorable. It prefers rock to sand, and the largest ones inhabit caverns in the coral.

These oysters can move about slowly, but when they have found a place to their liking, they fasten themselves to the rocks and stay there. They are reported to prefer a depth of forty to seventy feet, but Tuamotuan divers are said to go down for them as deep as a hundred and twenty feet. Some divers say that if they could work under the edge of the reef, which mushrooms out from the seaward shore of an atoll, leaving a cavern beneath, they would find larger oysters and finer pearls.

Pearling in the Tuamotu, when it is performed, is carried on by "skin divers," who work without a diving suit or other apparatus. At one time air pumps and suits were introduced, but these aroused such protest that the government restricted their use. Apparatus took democracy out of diving. Only those with capital could afford it. It produced unfair competition for the naked divers. In addition, it was depleting the supply. The weighted boots crushed too many young oysters. It takes about seven years for a pearl oyster to mature. So the government regulated diving - not only prohibiting mechanical equipment except in waters where naked divers could not work, but also rotating operations from island to island, year by

year, and limiting the quantity and size of oysters that could be taken.

Divers usually work in pairs, going down by turns from a canoe. A skin-diver's equipment consists of a glass-bottomed box, a pair of water-goggles, a knife, and a basket. The box is used, from the canoe, to locate colonies of oysters on the bottom, much as tourists in more frequented places observe marine life from a glass-bottomed boat. The diver wears the goggles so as to see more clearly under water.

A rope, with a weight attached, is let down from the canoe, and the diver, with his basket, follows the rope to the bottom. He enters the water feet first. Some go down all the way in that position, with the weight between the feet. Others carry no weight, but turn about, when well underwater, to climb down the rope head first, hand over hand.

The diver gropes about on the bottom, pries the oysters from the rock and fills the basket, which his partner hauls up to the canoe. Then he comes up, releasing his breath and gulping in air as he clings to the boat, and uttering a long sighing note that sounds like a combination of a whistle and a groan.

Not many pearl oysters can be brought up at one time. Some of them are as big as a dinner plate and weigh six or seven pounds. In the caverns they are said to grow as big as a foot and a half across. The big ones, a diver told me, are less likely to contain pearls, but the ones they do contain are finer.

At the end of the day the oysters are opened with a large knife. A good operator, we were told, could open a ton of shell in a day. The shell, when the fisheries were operating, was sold to dealers and taken to Tahiti. As an indication that the industry had not been entirely abandoned, I saw women in Tahiti chipping off the outer coating to clean the shell for shipment. The meat of this oyster is considered edible, but not very satisfactory in flavor.

Some of the lagoons are the home of another pearl producing mollusk, which the natives call pipi. I gathered a few pipi from the edges of mounds of tridacna shell In the lagoons. They were small - two inches or so across - and black. The shell is not valuable, but natives said the most exquisite pearls - the golden or pink or black ones - come from the pipi. The ones I opened contained no pearls.

Another of our party, with visions of taking home a literally hand-picked necklace for his future bride, spent all of a morning diving, only to learn, after hours of lung torturing labor and inflaming his eyes with immersion in salt water, that he was bringing up the wrong kind of oyster.

Even in its eclipse, the pearling industry retained something of its legendary character. "After an oyster is seven years old," said one pearl buyer in Papeete, "it dies, and if it contained a pearl, that pearl lies on the bottom of the lagoon. Think of the thousands of years oysters had been

dying in those lagoons, with pearls in them, before men began to hunt pearls in the islands. There must be fortunes lying in the silt, if there were any way to get at them."

But for some quick work on the part of our crew the *Islander* might now be resting among those legendary pearls on the bottom of the lagoon of Hao. On the first night at that island, the sampan, with three anchors out and a stern line moored to a tree, was lying about two hundred yards off the village of Vainono. The lagoon of Hao and the passage leading into it have an unfavorable reputation among seamen. This somewhat conservative statement appears in an old compendium of sailing directions for the South Pacific: Hao is "sometimes dangerous in consequence of the overfall from the lagoon, especially a little after high tide."

That is, the rising tide pours sea water into the lagoon, and the ebb carries it out through the narrow entrance at a dangerous speed.

Early in the evening, gusts of wind and rain smote across the lagoon. The *Islander* plunged and reared, straining at her anchors. The stern line parted, and the ship swung perilously toward the reef. Before long, one could feel by the motion of the ship that the anchors were dragging.

All hands turned out for a battle with wind and current that continued nearly half the night hauling on lines, diving for the anchors and finding a more secure hold for them, bending a new stern line. The luck that had pulled us through a similar situation at Fanning Island and again between Faaite and Tahanea stayed with us at Hao. The anchors were relocated firmly; the new stern line held, and the *Islander*, under close watch, rode out the rest of the night in comparative safety. But in one of her violent plunges the great cross-timber - a foot or more square - that stood athwart the bow was broken off short, the whole port end of it ripped away.

About Hao, as at other Tuamotu islands, flitted ghosts of the past. Half buried in forest, a hundred yards or more from the lagoon, stood the ancestor-stones of a marae, an ancient open-air temple. Against these tall, now crazily leaning slabs of coral had rested the insubstantial backs of the ancestral spirits when the turtle was sacrificed and these spirits had been summoned by chants such as we had heard at Tepula and at Vahitahi, to share the feast. Remains of low enclosures and platforms of coral lay about. These were all that survived of the once widely venerated temple Tehauorongo, where the navel-cord of Tangihia was reputed to be buried. Not a trace was left of the marae Poureva, in the village, or of the vault there that was said to have entombed the hero's skull.

Christianity came to the Tuamotu in the 1860's and 1870's, through the heroic endeavors of Father Fierens, Father Montiton, and others. The maraes are disordered and deserted, the god-boxes vanished; though on some of the more remote islands, when the missionary priest is safely in

his rude bed of thongs stretched across a wooden frame, the elders still cut the throat of the turtle with what remains of the ancient ceremony, intoning what they can recall of the sacred chants, and the twisted twig of green leaves sprinkles the blood of the sacrifice, that the sea may continue to yield food.

Most of the hundred and eighty inhabitants of Hao were in the community house on the evening of the second day when the members of the ship's company were guests of honor of the village. The big, bare room was shadowy and dim in the flickering light of two kerosene lanterns. Some of the poorer villagers still lit their homes with coconuts, but for the city hall the community used its best.

The villagers, some in dungarees or in cotton dresses, some in two yards of bright red cotton cloth wrapped around the body, stood or squatted around the hall. Our party, as the community's guests, occupied benches in front. A heap of coconuts filled a cleared space near the center, and a dozen or so of live chickens, tied together by the feet, clucked and protested near by.

Chief Atea, in his white ceremonial coat, arose with dignity and spoke eloquently in his own language, welcoming the visitors to the island and presenting the chickens and coconuts as the gift of the community. Dr. Cooke, as head of our party, replied in English, translated into Tahitian by Alec, brother of our captain, and presented the return gift of simple articles that the islanders prize, such as empty gasoline tins, cigarettes, and trinkets.

Then there was handshaking all around, after which the inevitable stiffness of a ceremonial occasion gave way to a more natural atmosphere of goodfellowship.

Next day the *Islander* pointed her sharp nose to the southeast, and plowed on for more days and nights through the Tuamotuan sea, calling briefly at Vahitahi, whose palms shade streets of deep, soft sand, and at Marutea - beautiful Marutea of the south, last of the Tuamotu-bound for the Mangareva and the Iles Gambier.

At Vahitahi, ancient rites still live. Spear drill, in ceremonial dress of coconut leaves.

6

Death of a People

MEANWHILE members of the expedition fanned out through the Cloud of Islands. Of those who voyaged from Vahitahi to Tatakoto by copra schooner, some slept in soaked blankets on deck under a driving tropical rain. Others spread mats below, where giant cockroaches did their best to devour them. Storm blew the schooner so far out of her course that all aboard had only a vague notion where they were, until the sky cleared sufficiently to permit the captain to determine that she had run past all of the Tuamotu and, if she kept on in that direction, would eventually reach Chile.

Tatakoto is as good an example as any of the hazards of landing on harborless low islands. The heavy whaleboat bounced like a nutshell in the monstrous sea. Between waves, the schooner and the land dropped out of sight. Onward the boat wallowed, speeding toward a shallow depression in the reef. A little way offshore, the men backed oars, waiting for a favorable wave.

For perhaps fifteen minutes the boat tossed there, until the coxswain, looking back quickly at an oncoming comber, gave the word. Then the oarsmen, heads down, pulled with a mighty, rhythmic heave, and the whaleboat rode the charging wave like a surfboard at Waikiki. Giddily it balanced on the crest, stood for a moment almost perpendicular, bow down, and then leveled off toward a huge coral head that jutted from the reef. A quick heave at the steering - sweep bent the course around the rock with apparently a fraction of an inch to spare. Into the hollow of the reef the boat crashed. The impact, even though cushioned by the backwash, jarred the men aboard with a grinding shock and ripped the stout planks of the bottom.

Men leaped quickly overside and waiting natives rushed out into waist-deep, churning water to help drag the boat across the reef.

That was one of many such landings. At Meetia our boat had been upset and we had been hurled across sharp lava rocks. At Vahitahi a boat from a schooner had been smashed like an eggshell on the reef. Some of

our party carried, for weeks, coral cuts resulting from a similar mishap at Marutea. On one call of the *Tiare Tahiti* at Vahitahi, natives, tugging in unison at long ropes and chanting: "Haul on the rope of Tane, haul!" dragged the ship bodily over the reef to the safety of the upper beach.

The principal feature that distinguishes life at Tatakoto from life elsewhere in the Tuamotu is the island's abundance of flies. They swarmed everywhere, clustering on food, clothes, and exposed skin. We often marveled at the natives' ability to sleep in the afternoon with flies crawling over their faces. We had been accustomed to consider houseflies a pest of civilization, but we learned that the explorers who discovered many of these islands had found them on most of the inhabited ones, though seldom so many as we found at Tatakoto.

In addition, Tatakoto shared with Hao the disadvantage of a poor quality of drinking water. Nevertheless, Tatakoto was an important area for some of our purposes. There dwelt the sage, Te Uira a Maro, whom our colleague Ua (as the natives called the ethnologist J. Frank Stimson) considered second to none in all the Tuamotu for his proficiency in the ancient learning. From him and from Tanehoanuku and Te Pongi, Ua recorded in five weeks more songs, legends, and traditions than he had ever obtained in a like period on any island.

If Tatakoto be considered unattractive, Reao must far outrank it in unwholesomeness. Nevertheless a section of the party had planned to spend some time there because it is one of the more "backward" islands and thus more useful for ethnological research, since it conserves more of the old traditions.

Reao and its neighbor Pukarua were among the last of the Tuamotu Islands where the starchy root-crop taro was grown, in trenches dug down to reach the brackish water that seeped through the coral and sand. It was also the only one that came to our notice where leprosy was prevalent. Attributed, as is usual in Polynesia, to foreign sources - in this case Chinese - it had infected, we were told, almost one third of the population, and the government was considering making Reao an official leprosarium for that whole sector of the Pacific.

The people of Reao had still another peculiarity. They wore wreaths of sun-dried pahua (tridacna clam) around their necks, where it provided a convenient reserve of food at which they nibbled from time to time. Pahua has a rather high odor even when fresh, and as the method of preservation appeared to be not entirely adequate, a native of Reao could be smelled from a considerable distance away.

Scientists, no less than soldiers, must take life in the field as they find it, and our ethnologists - Keneti and Ua and Te Rangi Hiroa - recorded some of their most interesting and valuable chants and traditions at

Pukarua and Reao.

Thus the detached sections of the expedition busied themselves as the *Islander* plowed on toward other lands. And to those aboard the sampan, a week out of Tepuka and nearly six weeks out of Honolulu, five of the eight Gambier Islands rose ruggedly against a spirit-lifting South Pacific dawn, their mountain tops tawny with aeho grass, the water gleaming in a maze of color along the fringing reefs.

A band of coral nineteen miles long and fifteen wide encloses the eight islands and numerous rocks and shoals that make up that land of ghosts and somber tropic beauty, of moldering cathedral ruins and vanishing humanity; a land that drowses under the shadow of as cruel a tragedy of well-meant zeal as has scarred the memory of any island in the Pacific.

It is said that when Père Honoré Laval sailed for Tahiti in 1871 after thirty-seven years of ministering (and administering) to the natives, all the people of Mangareva wept. To those who know Polynesians, this is quite credible. But few remained to weep.

The fallen stones, the crumbling plaster of the city that he built with their sweat and blood; the abandoned fields on the desolate mountainsides - these are his monument.

This is the story as it is told in Papeete and in the Gambiers - a cruel and somber tale, shot through with gleams of a vanishing barbaric splendor, and relieved by quaint touches of grotesque comedy - the story of the death of a people:

In the time when Te Mateoa reigned in Mangareva, the prophetess Toapere was informed by the gods that after her death and in the reign of Te Mateoa's successor strange ships would come, bringing new teaching and a time of peace.

Ships came in her own time, but the new teaching arrived in the reign of Te Maputeoa, the next king, as she had foretold.

The first ship was the *Duff*, carrying missionaries of the London Missionary Society to Tahiti in 1797.

'The people went out to the ship," says the native account. "Neither could hear the other, because the language was not understood, and the people did not go aboard. They said that something like white tapa stuck to the skin of the strangers. The white flesh was the cause of their deception."

Seven years later another vessel was sighted, probably the *Blossom*, commanded by Captain Beechey, who was the first to describe in detail Mangareva and its people.

"It is a bad ship," said Toapere when the sail hove in sight. "Do not go near it."

But some of the people went out to the ship and " were shot at. Ikau

and Kohanga stole a dog from the ship.'

Still another craft appeared, another "bad ship" according to the prophetess. The Mangarevans killed and ate two of the crew who had taken coconuts that were reserved for the king. In reprisal the visitors killed three of the natives. It is believed this was a Chilean ship carrying pearl divers from the Tuamotu.

A fourth vessel brought more pearl divers, from Rapa. It also brought disease, apparently smallpox, of which many Mangarevans, including the seeress Toapere, died.

J. A. Moerenhout, the Belgian merchant who described many islands in those seas, saw several ships when he visited Mangareva early in 1834, and in the same year George Nobbs, who later ministered at Pitcairn, called there on his way from Tahiti.

It was in August of that year that salvation - and disaster - came to Mangareva.

"The ship anchored off Tonai in front of Toapere, who was lying [in her tomb] in a cave above. Thus the prophecy of Toapere was fulfilled."

A whaler, it is said, had brought to Valparaiso, in Chile, the story of the cannibal islands where children played marbles in the streets with pearls, where a native would trade such jewels for a plug hat or a bottle of rum, and where the pale-brown islanders performed strange rites before the altars of ancient gods.

The news had come to the members of the Order of the Sacred Heart in their monastery at Valparaiso. And in the spirits of devout men there was kindled the ambition to save those islanders from their pagan ways.

The ship that anchored below the burial cave of the seeress brought Father Francois d'Assise Caret and Brother Columban Murphy - and Father Laval.

"Père Laval," says dryly the guidebook for French Oceania, "became the head of the mission by reason of his austere and dominating character and maintained that position until he was called to Tahiti by Bishop Tepano Jaussen in 1871."

Conch shells roared hollowly from the hilltops as the lookouts sighted the ship. King and native priests and warriors scanned the pale, ascetic faces and the dark robes of the strangers, and the mystic symbols of the Cross. Were these the magicians whose coming had been foretold, the messengers of the God whose lips touched sky and sea?

Laval and his companions beheld the faces of the long haired, tapa-kilted warriors, the tattooed forehead of the king, his chest hung with wreaths of sharks' teeth, his ears and fingers ringed with hair from the head of an enemy chief. They saw the queen, wreathed in yellow and red feathers, hibiscus bark and flowers, and bearing the pandanus-leaf fan of

royal rank. They marked the haughty, suspicious features of the high priest beneath the flaring head-dress of red feathers, the ear-pendants of huge black pearls.

The visitors were invested with ceremonial tapa and seated on stones covered with fine mats. The flower-decked people ran forward, throwing at the guests' feet mats, rolls of tapa, breadfruit, coconuts, parcels of food both cooked and raw. A long, rolling cry issued from the mouth of a native official. It was repeated by a second and a third. A chief thundered, "Arise!" And from all directions tribesmen ran forward, brandishing spears, and enacted in pantomime a sham battle.

Musicians played on slot drums and nose flutes, on tall sharkskin drums and low mat drums, and mournful horns of shell. Dancing and chanting went on for hours while Laval schemed to gain the confidence of the king and thwart the opposition of the high priest.

Meanwhile Father Caret had been invited to the neighboring island of Aukena as the guest of the chief of that island. The chief assigned Caret to the finest house in the village. A banquet was given for him there, and when the party broke up, three of the guests lingered. They were the eldest daughter of the chief and two of her ladies-in waiting. One can imagine the young priest's embarrassment when the three young women lifted the wreaths of flowers from their necks and placed them upon his, making signs to him that he was to choose among them. His still greater embarrassment when, as he stood motionless in his confusion at this assault upon his moral convictions, the princess threw her arms around him and pressed her nose to his in the Polynesian greeting of affection.

Sobbing, the girl sank to her knees as the priest, shouting Latin curses, wrenched himself from her clinging arms and hurled her violently away.

The chief, who had been watching through the crevices in the reeds of which the house was built, called to his attendants. The conch sounded; warriors of the guard ran up with spears. Caret dashed wildly through the open door and, crouching, scuttled up the mountainside, burrowing through the thickets of tall grass as he fled.

Half running, half creeping, he made his way upward, while spears prodded the grass at his heels and the foot steps of his pursuers crackled in the brush. Somehow, he kept out of sight.

"Bring fire!" shouted the chief.

A wisp of smoke curled up and a blaze raced over the slope. But Caret, plucking up his robe, ran on - over the mountain, to the seashore on the farther side. The dark mouth of a cave opened before him. There sat a native, mending a net. Below, a canoe lay drawn up on the beach.

Stripping a ring from his hand, the priest bribed the fisherman. The canoe slipped across the channel, bearing Caret to the protection of Te

Maputeoa and Laval.

Even after the missionaries had learned enough of the language to attempt the conversion of Te Maputeoa, their progress was slow. The king thought they should perform some of the miracles of which they had told him. He suggested that they walk on the lagoon. "Only God can do that," replied Laval.

Meanwhile the time was approaching for the king to go to the island of Taravai to hold court on disputes concerning boundaries of family lands. And thus the crisis came.

The high priest insisted that Laval and his colleagues accompany the royal party. The high priest went along, too - and with him a strong body of his own armed warriors, for his power was virtually equal to that of the king.

The court convened under a huge sacred banyan tree that still stands at Taravai. While the proceedings dragged on, Laval asked permission to pray. As it was granted, the high priest gave a signal. Warriors ran forward, spears leveled at the kneeling missionaries. Laval and his companions kept on praying.

It is a curious circumstance that Polynesian resolutions have often been led by women. It is a matter of historical record that the widowed queens of Kamehameha I brought about the overthrow of the old faith in Hawaii. And an even more dramatic legend credits the women of the Gambier Islands with the uprising that saved Laval and proved the turning point in the history of that country.

Shouting, the women rushed forward, shielding with their own bodies the menaced missionaries. Some, flinging their arms about the spearmen, held them back.

Amid the confusion, Laval calmly finished his prayer; then arose and coolly wrote down in a notebook the names of the natives who had intervened to protect him. The high priest, smarting in defeat, disappeared.

The king ordered the notebook brought to him. The missionaries paid no attention. He repeated the order. Laval replied: "If you want your name in the book, you can come to us."

And the king came.

From that moment, as even the conservative guidebook reports, Père Laval was "the virtual ruler of the Gambiers during the whole of his stay." Te Maputeoa made him a sort of prime minister, delegating to him much of the royal power.

Under his rule, the stone images of the ancient gods were shattered; the temple platforms destroyed; and the natives were brought into complete subjugation to Laval.

It is said there were nine thousand inhabitants when Laval began his reign. At the time of our visit there were about fifteen hundred, of whom two families were said to be the sole survivors of the ancient Mangarevan stock. The rest were immigrants from other islands.

For as time went on Laval's zeal seems to have approached madness. The people, though their chiefs had been war-like and their fighting men had eaten their enemies, were remarkably gentle and docile under the new regime. They did not resist Laval. Dutifully they hid their magnificent bodies under such garments as he deemed more modest than their accustomed attire; without protest they accepted the teaching of the new God who, they thought, might well be another manifestation of their own. Christian marriage came for the first time to the Gambiers. The customary freedom of the younger folk was forbidden and a native police force, directed by Laval, inflicted severe penalties for infringements of his moral code.

Much of this is a commonplace of evangelistic endeavor in many islands, where missionaries, despite frequent lack of tact and absence of ethnological understanding, have done on the whole a great deal of good and comparatively little harm. But Laval went further. He must have not only a church, a huge church, built of blocks of coral, plastered with lime burned from coral. There must also be palaces, a prison, a monastery, a convent, a textile factory, a whole city such as no island of Polynesia had seen. Wherever a pagan altar had stood, a chapel must be built, and he built them larger than many a city church.

And the people died.

The entire population of Mangareva was not sufficient for the enormous labors which Laval set them to do. So, as the story is told, he had the people of neighboring islands brought en masse to Mangareva to join in the work.

And still the people died.

Unaccustomed clothes, forced labor, the punishments inflicted by the ecclesiastical police, the sudden reversal of established customs, the enforced sterility in the convents and monasteries that he built for native converts and tuberculosis induced by living within stone walls all are believed to have contributed to the depopulation of the islands. But more than anything else, the cause must have lain in the hopelessness that overtakes a people when their entire cultural structure is uprooted. It is probable that many natives, in Laval's time, never really comprehended the principles of the faith he tried to give them, or found comfort in it. They knew only that their old life was gone -supplanted by a new life of unaccustomed labor, harsh laws, meaningless to them, and the whips of the constables.

Some, of course, saw whither events were tending. Te Maputeoa is said to have warned Laval that if these policies continued, he would soon have no subjects left to rule. And it is said that Laval replied: "Make them work day and night, to expiate the sins of their ancestors."

I was told in Papeete that once a princess of Mangareva fled secretly at night to a schooner in the harbor of Rikitea and uncovered before the captain a huge bowl of pearls, pleading, "I will give them all to you if you will take me away from this accursed island. And that as the captain stood speechless with wonder at the treasure, Laval and his native guards arrived, dragged both the princess and the captain to prison, and confiscated the pearls.

The people died - five thousand in ten years, as the tale is told. But the palaces, the courts and towers, the triumphal arches, the chapels, and the great church were built - that whole fantastic city whose ruins now molder among the strangling vines of the encroaching jungle - and the plantations were laid out on which the survivors were to labor for the Church.

This might have gone on for the rest of Laval's life, or until the last Mangarevan had perished. But secular influences intervened. Laval's rigid administration brought him into conflict with sea captains and traders who resented his stringent laws and his monopoly of business. Such complaints were frequent against missionaries in the Pacific, and were less frequently inspired by regard for the natives than by considerations of trade and a sailor's recreations. Laval's downfall was brought about by report of his riches, which led the government in Tahiti to investigate his trade in pearls and shell.

One Jean Dupuy had arrived in Mangareva as agent for a commercial firm. Laval's code, he said, was not for him. He defied the priest. So Laval threw him into jail. Dupuy smuggled a report to his employers, who complained to the governor in Papeete. Hence it came about that the Compte Êmile de la Roncière disembarked one day at Mangareva, and was shocked by what he saw.

His first act was to order the prison opened. The great doors creaked back, and the prisoners stumbled out of the dungeons. Among them, the story goes, were two small boys.

"Why were you imprisoned?" asked the governor.

"We laughed while mass was being said."

Roncière called for the records of vital statistics. As he examined them - the shrinking birth rate, the enormous toll of deaths - his face grew even more grave.

"Five thousand in ten years - what kind of government do you call this?"

"Ah, Monsieur le Compte, they have but gone more quickly to

heaven."

The government investigated Laval's trade in pearls and shell, but Laval continued to rule the Gambiers until 1871, the year the French protectorate, for which the islanders had applied in 1844, was finally ratified in Paris, leading to outright annexation ten years later.

Père Laval was called to Tahiti by the bishop "amidst a scene of universal grief," as Georges Goyau of the French Academy described it, "the entire population being bathed in tears until his vessel passed from sight." He died in Tahiti in 1880 and is buried in the mission cemetery there.

Milder fathers followed Laval at Mangareva, and mass is still said in the vast church of St. Michael at Rikitea, with its two square towers, its altar inlaid with mother of pearl, its seating accommodations for twelve hundred worshipers - almost as many as the entire population of the islands.

The roofs of the palaces, the convent, the monastery, the factories, have fallen; the jungle chokes the gardens and the courts. Natives say the ghosts of those who died under the whips of Laval's overseers wail there in the mystery - breathing, perfumed nights.

And the bones of the prophetess Toapere molder away to dust in the cave that overlooks the bay.

"Haul on the rope of Tane, haul," chanted the natives as they dragged the *Tiare Tahiti* up the beach at Vahitahi.

7

The Forgotten Islands

MANGAREVA, which had been considered so important a field of study that the expedition had been named for it, was later described in the official report as "the most disappointing place on our entire trip."

That meant that it was so from the viewpoint of natural science. The native forest was gone, having been burned over many times, and with it the native insects and land mollusks that our party sought. Nevertheless, partly because of stormy weather at sea and partly in order to take advantage of such opportunities for collecting as there were after we had come so far, the party remained in the Gambiers for nearly three weeks.

The ethnologists regarded it in a different light. Native manuscripts and eventually a copy of part of the memoirs of Father Laval were available, and a few old residents related folk tales and songs, including beautiful laments and other chants from the great epics of the ancient time, in many of which could be recognized the elements of tales that were already familiar to us in the Tuamotu and other lands. The results occupy more than five hundred closely printed pages in a museum bulletin.

The party found four islands inhabited by some fifteen hundred people: a few French, a few Chinese, an American, the scarce survivors of the ancient population, and immigrants from the Tuamotu, Tahiti, Rapa-nui (as Easter Island is called in those seas), and the Austral Islands.

The high interior was overgrown with tall, stiff, reedy aeho, the coasts rocky and precipitous, but the inhabited areas were garden spots: the trees loaded with oranges, breadfruit, and a small variety of grapefruit; heavy bunches of bananas hanging from the stems of the giant perennial herb that bears them; coffee trees gone wild on neglected plantations; fields of maniota - the cassava or manioc which is the source of the tapioca of commerce - waving on hill sides; guavas growing in wild profusion, and tropical flowers scenting the air. The French administrator even had peach trees in his garden.

The crumbling palaces of Laval's city lay in melancholy disorder as our party strode down the sanded street be neath the breadfruit trees. The

two hundred citizens of Rikitea, capital of the Gambier Islands, lived in shabby frame houses, mostly unpainted, and a few of stone, with wide verandas in front, thatched cook-houses and earth ovens behind, and neglected gardens straggling all around.

The pearling trade had passed; copra was in the doldrums, and Mangareva's coconut trees never had borne profusely, for the islands are too far south. There remained only the subsistence farming of the small plantations, and fishing in the lagoon. Rikitea drowsed among its memories and its ghosts.

The church of St. Michael is 164 by 52 feet in size, and rises in 75 feet or more of gleaming white into the air. Above its heavy door is carved the inscription: *Quis ut Deus?* Massive white columns uphold the vaulted blue ceiling, which is studded with stars of nacre, and the light from without comes filtered through stained glass. The great altar and the tall cross that stands above it are inlaid with mother of pearl in the shapes of sprays of flowers. But our party saw no sign of the fabled blue pearl, of monstrous size, that once lay on the altar, or the necklace of black pearls that had adorned the plaster image of the Divine Mother.

The other end of the street becomes a mountain trail, climbing beneath Polynesian hibiscus and candlenut trees to the steep interior, where the slopes lie deep in tough stems of aeho grass, and to the rugged height where the princes of the ancient line once lived in seclusion until the time came for them to take the throne. A bit of pavement, a low terrace, and a few scattered stones remain. Among the ruins are strewn shells of clams. It is said that the servants of the royal household formed a line from the sea to the mountain top, passing baskets of food from hand to hand for the little prince. The place is still sacred: there is a superstition that the fires which sweep through the valley when fields are cleared never touch this spot, and that there the yellow and pink guavas grow larger and sweeter and in more profusion than anywhere else.

The administrator made the visitors welcome - though later he accused one of the party of alienating the affections of his mistress, and was restrained only with difficulty from arresting another member of the party as a spy. I am assured that both accusations were unfounded, and certainly there was nothing at Mangareva on which to spy. It is true that the islands of the South Pacific, east of the 180th meridian, have a strategic importance, when considered as a whole, being the approximate equivalent and counterpart of the islands west of that meridian, which Japan held under the mandate of the League of Nations, and that a number of them were occupied, in time of war, by United States and Allied forces to guard the supply route to Australia and the approaches to South America and the Panama Canal. But Mangareva is at the far south eastern

corner of Polynesia, and at the time it had no fortifications and no military establishment whatever.

The administrator's suspicions were aroused by his discovery, in the suspect's possession, of a questionnaire which had been given to each member of the party by a professor of geography at the University of Hawaii who wanted to collect reliable information about the islands visited.

There were questions about harbors, ease of landing, industries and resources, about immigration and the status of foreigners in the islands - all of which the administrator considered incriminating. But the most damaging evidence, in his estimation, was the final question, and particularly the last sentence of that question:

"What evidence is there of changes by which one can foretell in some degree what the future of the people will be. Will there be an influx of strangers and consequent clash of cultures, as there has been in Hawaii? .... Will the people have a more happy existence as a result of such changes than they now have?"

This, the administrator muttered through his luxuriant yellow beard, was downright subversive; the expedition a band of spies and worse. It took some fast talking by the head of the party and some of his more fluent associates, to keep our colleague out of what the natives call the *fare auri*, the Iron House.

As for the other charge, whether or not any of our party was responsible, the lady's affections remained alienated. The last I saw of the administrator, he was in Papeete in quest - so gossip ran - of a new consort.

A loyal friend of the expedition was Steve, Mangareva's transplanted American. Steve had ridden the range in the Southwest, cut timber on the Pacific coast, and "wrangled dudes" on a ranch that catered to wealthy vacationists. It was to this latter employment that he owed his presence in Mangareva. As I heard the story, it had been his good fortune to become guide and mentor to a guest of the ranch who fancied himself as a sportsman. The guest wanted to shoot a bear, and Steve saw to it that he did, or at least that a bear was shot and that the guest got the credit for it. Steve thereupon received a bonus of five hundred dollars and sailed for Tahiti, where he met the Mangarevan girl who became his wife.

"I woke up in Mangareva and have been here ever since," he said.

That had been about eleven years. Steve's wife claimed descent from one of the two remaining genuine Mangarevan families, and her kinfolk owned an entire valley over the mountain from Rikitea, besides other lands scattered here and there on the island and houses in town.

Steve had settled down to farming in the fertile lands of his wife's

people: clearing, planting manioc, papayas, lettuce, cabbage, onions, tobacco. But his wife had not only land, but relatives - forty or more of them within calling distance as things go in the Gambiers.

The Polynesian relationship of *fetii* or kinship has no exact counterpart in our social system. In the old native economy, as we had found it in such islands as Tepuka, land and the resources of life in general were regarded as the property not of individuals, but of family groups. Every relative, no matter how remote his relationship, could claim an interest in the joint possessions. Often I have asked a native: "Whose land is this?" or "Whose coconut trees are these?" and the answer would be: "*To matou*" - belonging to us. Never the singular pronoun, always the plural. There were distinctions, of course. One might say "*toku kahu*," my dress, or "*taku here*," my sweet heart. But one might be expected to lend the dress. As for the sweetheart, I heard a song sung in the street of a Tuamotuan village:

E taku hoa e, ka rave atu koe
to taua vahine - kaore pekapeka

which is translatable roughly thus:

My friend, take for yourself the woman
belonging to both of us-
There is no reason for us to quarrel over her.

When we made a gift to a native, he divided it, if divisible, with any relatives who were at hand, or if it could not be divided, it might be passed around.

Economists or sociologists might say that such a system penalizes and discourages individual effort and enterprise. In modern conditions, it often does. We have little evidence that its effects were harmful in Polynesia in pre-European times, when presumably the influence of powerful chiefs kept most of the people usefully employed for the welfare of the community. Keneti and I observed no detriment traceable to it at Tepuka. It may be significant, however, that in the larger population and area of pre-European Hawaii, and similarly in Tahiti, a feudal system had been established, in which the group ownership was vested in king and chiefs, and each man's production was stimulated by his obligation to provide a share of the fruit of his labor for the man higher up. On a small scale, and in a country of limited resources, such as a Tuamotuan atoll, the old family-communal system worked very well, and still does. In less primitive conditions, the warnings of the economists often seem to be borne out by fact. For a time there was one Tahitian-owned restaurant in Papeete - one of the very few that served coffee which an American could

drink without a shudder. Relatives swarmed in from all parts of Tahiti and from neighboring islands. The proprietor could not refuse them food and drink. They would have fed and sheltered him if he had visited their homesteads. The only difference was that he had more than they to share. They boarded free until the owner, to avert bankruptcy, sold out to a Chinese.

So, at Mangareva, Steve settled down on the land and the relatives settled down on him, until he realized the futility of excessive industry and gave up his American notions of producing a surplus. But he and his wife lived well and seemed contented. The maniota roots grew long and fat in their fields, the coffee was good and the tobacco passable, and the oranges full of tart juice, either for direct consumption or for fermentation into the potent Mangarevan orange beer. Steve seemed likely to end his days in that placid, comfortable life.

Our party, deterred perhaps by scientific hard-headedness, failed to observe any of the ghosts to whose resentment at the disturbance of their resting places some of the natives attributed the storms that continued throughout the time the main body of the expedition spent in the Gambiers. Some did see, however, the footprints of the ghost dog, the Black Hound of Mangareva.

Black as ink, the ghostly footprints lay on the white sand of the beach-lay like shadows, for they were not impressed into the sand. They looked, rather, as if they had been painted on. If they were the footprints of a dog, it was a dog of giant size, and one with deformed feet, for only an active imagination could recognize in them the form of a canine foot. The natives said that these marks were a harbinger of death, although some contended that the dog himself was a friendly spirit, who often saved people from the attacks of more hostile demons by frightening them away. He was gigantic and black, with fiery, glowing eyes, they said, and was often seen moving in the air high above the ground. This sounded very much like Poki, the ghost dog of Honolulu, who comes to the aid of those in peril.

It was the scientific mind of Te Rangi Hiroa that solved the mystery of the footprints. The explanation was so simple that I wondered why it apparently had occurred to no observer before. The sand of Mangareva is of two colors: white, composed of fragments of coral and of seashells, and black, composed of disintegrated lava, like the famous black beaches of Arue in Tahiti and of Kalapana in Hawaii. Waves had washed the white sand over the black, burying it, and then had washed away the white in some places, exposing patches of black. These were the "footprints" of *Te 'Uri 'Ere'ere*, the Black Dog, the magician's ghost.

On the island of Taravai, Keneti found the remains of the ancient

pavement around the banyan tree where King Te Maputeoa had held court and where he had submitted to Laval, and the rock ledge on the bluff where his warriors had cut their hair. On Angakau-i-tai he and Steve entered the Cave of the Kings, where the bones of Te Maputeoa's predecessors, wrapped in white tapa, had been laid away. Te Maputeoa himself lies in a stone tomb on a ridge overlooking Rikitea. Its roof has caved in above the royal remains, and the purau trees drop yellow flowers, deepening to dull red, upon the fallen tiles.

A Tuamotuan child. Background shows house construction of panels of woven coconut leaves.

8

Pitcairn Island

TALL SURF was crashing on the reef where lay the gaunt, shattered hull of the *Pro Patria*, like a stranded sea monster, as the *Islander* passed Temoe, three hours out of Rikitea, bound for Pitcairn Island. James Norman Hall told us later, in Tahiti, of his shipwreck there while on his way to Pitcairn some time before.

The sampan tossed in the grip of colossal waves. Rain beat down on the deck and sifted between the matchboards of the cabin until the scientists, almost afloat in their bunks, envied the seamen and volunteers in the focs'l. There, a wave occasionally spilled down the ventilator, but the narrow, fume-filled quarters were comparatively dry and warm.

No sights could be taken on that murky voyage. The *Islander* lay to at night, bounding up on mighty swells and slapping down into hollows of the sea. But in the morning of the second day the precipitous shore of Pitcairn was visible, a lone, stern hump of volcanic rock in the watery vastness of the south.

From the sea the island looked somewhat like Lanai, in the Hawaiian group, being mound-like in shape, except that its shores stood up more steeply from the sea and were guarded by massive, scattered rocks. All around it there was nothing that looked like a safe landing.

The mutineers of the *Bounty*, in their flight, had chosen their refuge well, selecting it for its remoteness and relative inaccessibility to sailing craft. Even the stout motor of the *Islander* battled in vain against the heavy swell, and the sampan was forced to run past the island and return at a more favorable angle.

As she drew abreast of Bounty Bay, a boat put out from the island. It was built on the lines of a whaleboat, manned by eight or ten oarsmen, and loaded with forty or more Pitcairn men. They were dressed in odds and ends of cast off garments - old sea jackets, dungarees, officers' caps, anything they had been able to get, as gifts or by barter, from passing ships. All were barefoot.

They swarmed over the side, examining the ship with keen interest, for

it was the first sampan they had seen. They greeted the party with hearty hospitality, having been forewarned of the visit by friends in Honolulu. Families on the island had already been assigned as hosts to those who went ashore.

The Pitcairn men were a sturdy lot, taller than the average of either Tahitians or Englishmen, their two ancestries, and physically hard from the rugged island life and their unending struggle with the sea. In feature they suggested tanned Britons, though an experienced observer could detect the traces of their Polynesian heritage. Their most noticeable physical peculiarity was the almost universal loss of teeth, which had drawn the mouths of many of them inward, giving them a thin-lipped, hollow-cheeked appearance.

They spoke English with an accent, intoned in a peculiar cadence and with an engaging drawl. Among themselves, they conversed in their own dialect, which some of our party found difficult to understand at first. On being heard repeatedly, it resolved itself into a kind of pidgin English, suggesting both the popular speech of Hawaii and the dialect spoken by "hill billy" characters in comic strips, but including some Tahitian words, fragments of English words re-duplicated in Polynesian fashion, and some words apparently of local origin. Its main phonetic peculiarity was the substitution of *l* for *r* and *w* for *v*. One could imagine the mutineers teaching their Tahitian wives a simplifed version of their own already garbled speech; the wives modifying it with their Polynesian accent, and the children learning by ear to speak the mixed and mutilated linguistic result.

Visitors rarely go ashore at Pitcairn. Passing ships lie off the island briefly while the islanders come out to trade curios and vegetables for clothing and imported foods. The rare passengers who do land go ashore in the Pitcairn boats. Ships' captains don't risk their own boats in Bounty Bay.

The dory tossed, grinding against the *Islander's* side, as our shore party stepped down into the craft. Rising on a wave, the gunwale ground our leader's ankle against the side of the sampan. The injury handicapped Dr. Cooke in the field for months.

The boat wallowed through the swell toward the unprotected indentation that is Bounty Bay. Big dark rocks strewed the passage; surf boiled around them and battered at the narrow shingle at the base of the cliff, reddish black and streaked with white, that towered behind the narrow beach.

It is a landing that few sailors, save the practiced Pitcairn men, are willing to attempt. But with calm, alert assurance the steersman guided the boat in a curve that seemed to end abruptly at a huge rock directly in the

course. At a word from their leader the boatmen backed water; the dory hovered, waiting for the favorable moment, then swept precariously around the rock. Men leaped out, and others ran down from the shore to help drag the boat up on a runaway of logs which slanted upward toward the thatched boathouses that stood on crooked, leaning sup ports at the base of the cliff.

Behind them, a rutted trail of reddish-brown earth climbed the talus slope to the cliff proper, then followed the base of the rock wall and mounted diagonally to the high ground, a quarter of a mile inland, where the village of Adamstown had stood since the mutineers had built it well back from the coast for concealment, behind a screen of trees.

Up the trail the men of Pitcairn and the visitors climbed, some of our hosts trundling underslung wheelbarrows loaded with the heavier articles of the expedition's equipment.

Some fifty unpainted houses, built of rough planks laid horizontally, stood among the shrubbery along curving lanes, in no apparent attempt at orderly arrangement but with an informal, rustic charm. Most of the roofs were of corrugated iron, less picturesque than the thatch that had covered the original homes of the mutineers, but more practical for conservation of rain water. Separate cook houses stood at the rear, as in Tahiti.

A large church, two stories high, with many windows but with no steeple, stood on a terrace at one side of a small plaza. Near it, a smaller building served as post office and city hall. A signal bell hung on a cross-bar between two posts, and a wooden bench provided a lounging place for members of the community after church or civic sessions. The third public building was a schoolhouse, some fifty feet long, with home-made benches and tables, its interior walls adorned with Bible texts. There was also a small jail, which residents said was seldom occupied.

Only one house was observed that retained the original style of construction evolved by the early settlers, with out nails. The uprights stood on rocks; planks fitted into grooves in the sides of the uprights, and there were sliding shutters. Most of the older houses had been taken apart and used by shipwrecked sailors to build a boat in about 1857 when the Pitcairn people were absent at Norfolk Island.

Farther inland were fields of temperate zone and tropical crops: potatoes and taro, sweet potatoes and yams; cabbages and squash; beets, carrots, onions; corn and manioc; pineapple and watermelon; clumps of banana plants; groves of limes and oranges, of breadfruit and coconut, and a Polynesian fruit called vi. The soil, like most thoroughly disintegrated lava, is rich, and men told us they fertilized it from time to time with seaweed. The main worry was whether they would have sufficient rainfall. Goats bounded among the rocks; chickens scratched in the open spaces.

There were no pigs; all the swine on the island had been killed, to remove a source of temptation, when the community adopted Adventism, which forbids pork.

Such was the home of the descendants of the mutineers - two and a quarter miles by one of volcanic rock and earth, with its little capital city which was the base of operations for our party in the interests of science.

9

Scions of Mutiny

THE STORY of Pitcairn Island is widely known in the world, for it has been written several times. Little can be added to it from sources on Pitcairn itself, for the people there know it mainly from books. Not much of it has been handed down direct from the pioneers. John Adams, the last survivor of the mutineers, in his pious old age, was concerned with bringing up the children of the community in godly ways, and presumably thought it best not to dwell on the violent history of the colony's beginnings.

It will be enough to recall here the bare outlines of that story.

After Captain Cook and other voyagers had reported in England on the productiveness of breadfruit in the South Seas, owners of plantations in the West Indies asked King George III to introduce breadfruit into their islands. It would be an inexpensive food for their slaves. In 1787 Lieutenant William Bligh, accompanied by a botanist and a gardener, was sent in the *Bounty* - a sailing vessel about the size of our sampan - to Tahiti for breadfruit trees.

When the *Bounty* sailed from Tahiti on April 4, 1789, there were more than a thousand young breadfruit trees aboard, besides other slips and seeds. But the seamen's sojourn in "the New Cythera" had proved too marked a contrast to life either in England at that time or at sea under the rigid discipline of Bligh. It was charged that the commander grafted on food and that his severity toward the crew went beyond even the harsh standards of the time. It appears, too, that some of the men had made connections in Tahiti that they were loath to sever.

On the morning of April 28, Fletcher Christian, the master's mate, awakened Bligh and told him he was a prisoner. Bligh and eighteen others were put over the side into the ship's cutter. After a forty-one day voyage of extreme hardship, over more than 3,600 miles of sea, Bligh and the survivors of his party reached Timar, in the East Indies, whence twelve of them eventually arrived in England.

There remained, aboard the *Bounty*, Christian and two dozen others,

bent upon making their homes in the South Sea. After obtaining supplies in Tahiti, they acquired a gift of land from a chief at Tubuai, in the Austral Islands, but the natives objected to their building a stockade for defense; disputes arose among the sailors, and they returned in the autumn of 1780 to Tahiti. Sixteen remained there, two to meet violent deaths within a few months, and the others to be captured by Captain Edwards of H.M.S. *Pandora*, who, according to the records, rivaled Bligh in cruelty. Two drowned in chains when the *Pandora* was wrecked on the Great Barrier Reef; two were struck by a gangway and sank; the rest reached England for trial. Of these, four were acquitted, three were pardoned, and three were hanged.

Christian, with eight other mutineers, left Tahiti in the *Bounty* soon after their arrival at Tahiti from Tubuai. Also aboard were six Tahitian men and twelve or thirteen Tahitian women. These, with a few immigrants in later times, were the ancestors of the present people of Pitcairn.

Christian had heard of the discovery of Pitcairn by Carteret, in 1767. The island was uninhabited at that time, was far from inhabited lands and from the track of ships, had no harbor, and was easily defensible. He chose it as the future home of the *Bounty's* remaining company.

The ship was run on the rocks in Bounty Bay, stripped of everything that could be used, and burned. The settlement was established, far from the world. Not until 1808 did a ship call there; not until 1813 did the world learn what had become of the unapprehended mutineers.

Life on the island had not run smoothly in the intervening years. It appears that some of the British sailors ill treated the Tahitian men, whom they regarded as servants. Trouble also arose over the women. Two of the mutineers distilled liquor from the roots of the ti plant - the source of the first okolehao which was distilled in Hawaii by former convicts from the penal settlements in Australia. Nearly a century and a half afterward, when experimenters in Hawaii were seeking a source of commercial starch, they analyzed the ti, and discovered that it contained little or no starch, but a fruit sugar instead. Thus okolehao and the Pitcairn mutineers' beverage, which, since one of its distillers was named McCoy, we may call the original "McCoy," were really brandy. Those of the mutineers who had a taste for it apparently stayed on a continuous drunk for several years. Some went crazy, and there was a prolonged period of feuding and slaughter.

Thus it came about that jealousy, madness, and strong drink all but exterminated the British element in the original Pitcairn colony. By about 1800, Alexander Smith, who adopted the name of John Adams, was the only male survivor of the entire original party, along with eight or nine women and two dozen or more children.

Captain Matthew Folger of Boston, in the sealing ship *Topaze*, landed at Pitcairn in 1808, learned the story from Adams, and informed the British Admiralty five years later, thus renewing the island's relations with the world.

Edward Young, one of the last of the mutineers, had attempted to teach the children, using the Bible as a text, and Adams carried on this activity after Young's death. The riotous ways of the earlier Pitcairn had given way, by this time, to an austere piety. Missionaries from London guided the islanders for some years after the rediscovery of the colony. In 1876 a box of Seventh Day Adventist tracts prepared the way for their acceptance of the faith they now profess. There is a legend that a Pitcairn Islander, dying in San Francisco after shipping as a sailor, begged the minister who attended him in his last hours to carry that faith to his people. At any rate, the Rev. John I. Tay, a Seventh Day Adventist missionary, arrived at Pitcairn in 1886, and after he had won the allegiance of the majority, the others joined with them, so as to avoid dissension.

Meanwhile the island had become overcrowded. The land, although fertile, is not very large in area, and the water supply is not dependable. There were two migrations, neither of which was entirely permanent.

After a drought and crop failure in 1835, King Pomare offered land in Tahiti, and eighty-seven Pitcairn residents went there. Many fell ill, some died; the moral environment was not to their liking, and the survivors returned in a few months to Pitcairn.

Another drought and famine impelled the Pitcairn colony to ask the British government to transfer them to a larger island. The entire population, then numbering 187, was sent in 1856 to Norfolk Island, a thousand miles north east of Sydney, Australia. Although they found more room to expand there, and even a village already built, some grew homesick and returned within a couple of years to Pitcairn.

One other attempt was made to lure them away. A king of Hawaii, wishing to offset Asiatic immigration by bringing in people who were more nearly akin to the Hawaiians, set aside lands on the island of Kauai for the Pitcairn people and obtained permission of the British government to transport them thither. But the descendants of the mutineers had had enough of being uprooted. They refused to leave Pitcairn.

So there they were, approaching two hundred in number, administering their local affairs under the distant authority of Great Britain, and eagerly greeting their infrequent visitors from the world outside.

Rumors that a century and a half of inbreeding had depleted the stock, appeared to be unfounded. Except for poor teeth, which might have been a

heritage from the original mutineers, most of the Pitcairn people seemed healthy and intelligent. They knew little of the great world save what they had gleaned from a few books, newspapers, and magazines left by passing ships, letters from friends abroad, and contact with visitors, and thus they might have been considered somewhat provincial, but they were about like an isolated group in any environment that calls for the ruggedness of pioneers.

The *Islander's* shore party took up headquarters in the rude but hospitable homes of the villagers, some of whom developed considerable interest in helping to collect specimens. The interiors of these homes were of fitted planks, sometimes papered, with floors of wide hand-sawn planks, occasionally painted. Imported furniture, mainly of the style of the 1890's, mingled with home-made articles. Sea chests and a few built-in bunks recalled the seafaring days of the colony's progenitors. Kerosene lamps had replaced the strings of candlenuts with which the houses had been lighted in earlier times, and glass windows let in the sunlight by day. Tableware was such as could be obtained from ships. There were a few old sewing machines, a few gramophones, and later a radio sending station was set up, powered, I believe, by a windmill. Fishing was done largely with imported tackle.

In other respects, life was still fairly primitive. There were no horses and no power machines; the fields were not plowed, but cultivated by hand with spade and hoe. Goods were transported in home-made, underslung wheelbarrows up and down the muddy trails. We were told that once a year each family boiled down sea water to extract salt.

The islanders had lost most of the old Polynesian crafts. They still made mats, baskets, and hats of pandanus leaves, though they no longer beat the papery tapa fabric from the bark of the aute shrub. They wore no wreaths, though they made necklaces of seeds for barter to visitors. About the only thing approaching a craft art was the carving of curios from orange wood and from miro wood which the men brought in their boats from Henderson Island, ninety miles away.

Food was still sometimes cooked underground, in the Polynesian *umu*, but oftener in iron pots hung over the coals in a fireplace. The marriage customs were British. Property was held individually, rather than by the extended family group as in Polynesia. This was becoming an embarrassment as the population grew and the inherited tracts of land were divided into smaller and smaller holdings. It looked as if Pitcairn would either have to revert to family communal tenure or undertake a new migration. However, the population was not increasing as rapidly as it had previously, the birth rate having fallen off in recent years.

The public buildings and roads were, of course, community property,

and this extended to the large boats, which evidently were considered a public utility. The small dugout canoes were owned by families. There was one suggestion of Polynesian custom: when captains of visiting ships gave food to the islanders, it was divided equally among the families. But it was not divided equally as to individuals. Each family, regardless of its size, got the same amount.

The tradition of the austere life, inaugurated by Young and Adams and intensified by the Adventist regime, persisted. No meal was eaten without prayer, and church services on Saturday lasted nearly all day. Our hosts abhorred alcohol and tobacco, although this abstinence did not extend to the sacramental wine. They made it themselves, and if that was the only alcoholic beverage with which they were familiar, it is no wonder that they had no taste for liquor. The more devout among them abstained from all meat, while others were so liberal as to eat chicken and goat, and eggs and fish were not forbidden. Like most Polynesians, they did not relish milk. They liked fruit, and made fruit pies for dessert.

Our chief, Dr. Cooke, showed the consideration for others that always marked his conduct, by taking his pipe out of doors for his after-dinner smoke, even in the worst weather, to avoid offending the nostrils of his hosts.

Men and women ate together - another departure from the custom of many Polynesian communities - and had equal rights in the inheritance of property. The original mutineers evidently had discouraged the eating of raw fish, but at least one Tahitian dish was still prepared. It was made of boiled yams or bananas, grated and mixed with coconut, baked, and sweetened with molasses or with a syrup made from the ti root. They called it pilihai. Popoi, another Polynesian concoction, made at Pitcairn from bananas and boiled taro, seemed to be used mainly for the weaning of babies.

The austere life had not prevented a high rate of technical illegitimacy - something like twenty-five percent the last time the records had been tabulated. We were assured, however, that it was merely technical. The parents of these children were permanently united and respectable couples who just hadn't got around to undergoing a ceremony.

The colony was governed by an elected chief magistrate and a small council. Taxes were paid by a week's work each year by each man from 18 to 60, on roads, boats, and repair of public buildings. As there was little, if any, money on the island, tithes were paid to the church in produce - fruit and the like. This was supposed to be traded to ships, but if no ship came, the fruit spoiled in the storehouse. The theory apparently was that it was good for the citizens to tithe, whether any use was made of it or not.

A problem in any such isolated community is medical and dental care. They had gone without both in the early days, except for such rough and ready surgery as the mutineers might attempt and whatever knowledge of herbs the Tahitian women possessed. In recent years a dentist from New Zealand had settled there, too late to save the dentition of the elder residents, though a number of them wore artificial teeth. Some knowledge of herbs and of elementary first aid survived, but a really serious case usually had to await the arrival of a ship. If the ship didn't arrive in time, well, perhaps the patient would have died anyway. In recent years, it became possible to call for aid by radio - if the radio was working.

Their amusements were simple and few. Children enjoyed swimming; adults apparently not. Perhaps, like the Tuamotuans, they got enough aquatic exercise in their serious pursuit of fishing. They did hold a boat race, they told us, on New Year's Day, and some of the young people used surfboards. There were kites, with tails made of banana bark, and tops made of candlenuts with the midrib of a coconut leaflet thrust through as a stem, and the children spun them by twirling them between the palms of their hands.

The days of our shore party at Pitcairn, however, were spent not in studying the human inhabitants, but in the field-toiling up slippery trails under cold rain, while wind howled around the crags; picking land shells from leaves and rocks, grubbing plants out of the soil, and shaking insects from the branches of shrubs into the upturned inner surface of a pink sun-parasol which Elwood Zimmerman, the entomologist, carried throughout the expedition, in defiance of the jeers and jests of his colleagues. "Zimmy" explained that this was the most efficient method of collecting.

He was very choosy about insects. Cockroaches, flies, spiders, and various of those lowly beetles which a Tahitian chant declares "will stand in the presence of the Shining One," were scorned. He was particularly keen in search of specimens of a genus called Rhynchogonus, which the rest of us promptly nicknamed "Rinkydinkus." "Rinky," for short, was an inconspicuous but active little creature which apparently devoted most of its attention to propagating. At least those which Zimmy kept in captivity did. It was a severe blow to him that he didn't find a single Rhynchogonus on Pitcairn.

Land shells, or land mollusks, are little snail-like animals which occur in bewildering variety of genera and species, size and form. They are highly specialized, each kind living only on certain vegetation and in certain conditions. Those on one side of a valley or a ridge may be entirely different from those on the other side. They are sensitive, if not sensible. We shall hear more of them in the course of this narrative, for I became moderately interested in them and devoted many of my days with the

expedition to gathering them. They were the particular concern of Dr. C. Montague Cooke, Jr., an authority in that field, and his assistant, Donald Anderson, and they gradually inveigled most of the rest of us. Yoshio, the engineer, indeed, showed such proficiency - having invented a process of picking some of the tinier kinds off the faces of cliffs and leaves with a pair of coconut-leaflet midribs manipulated like chopsticks - that after the voyage Dr. Cooke rescued him from his seagoing life and made him an assistant malacologist at the Museum. The word may call for definition. A malacologist is one who studies mollusks, or, as Dr. Cooke explained it, a conchologist collects dead shells, and a malacologist live ones. Dr. Cooke's injury prevented him from doing much collecting while on the island, but his disappointment was relieved somewhat by the efforts of Anderson and those of a Pitcairn woman who brought in a bottle full of what the scientist called "endemic species."

Meanwhile the guard of crewmen aboard the *Islander* kept constantly alert, as squalls and shifting winds forced frequent changes of anchorage - five in all - lest the sampan be driven on the rocks. The weather was bad all the time and it grew worse.

At length, as Dr. Cooke and Raymond Fosberg, the assistant botanist, clambered down the trail one morning, they were met by Parkin Christian, the chief magistrate, who advised them to assemble the shore party and board the *Islander* as quickly as possible, while they could still get aboard. The wind was already increasing in violence, and the surf mounting high in Bounty Bay.

The sturdy men of Pitcairn launched one of their boats. It plowed through the breakers and around to the west side of the island, where the sampan had sought such shelter as was available in the mounting seas. Hurriedly the expedition's shore equipment and specimens were handed aboard. All of these operations took about four hours, and by that time the gale was raging more furiously than ever. The *Islander*, towing the Pitcairn boat at the end of a stout line, bucked the waves back to the vicinity of Bounty Bay, where our Pitcairn friends made their landing as expertly as before, despite the frightful weather.

The sampan then circled completely around the island, while the skipper scanned the surf that crashed on the dark rocks at every side. There was no longer any lee to afford an anchorage. Everywhere a tremendous sea was running, dashing high against the austere cliffs. Heading northeast, the *Islander's* sharp bow dug deeply into the waves.

Dr. Cooke, who was somewhat given to understatement, wrote in his log: "We had a rather bad night."

I think the *Islander* never was so battered anywhere else in all her voyaging as in that night's run from Pitcairn to Henderson Island.

10

The Lost Island

IN THE seagoing vocabulary of the Pacific there are three kinds of islands - high, low, and makatea. High and low islands are what their names imply: hilly or mountainous ones, usually of volcanic origin, and coral atolls, which are low and almost flat. A makatea island is an atoll that has been raised, so that it stands up well out of the sea and has been exposed to erosion. Any sailor of those seas will tell you that it's a difficult kind of island.

For the weather gnaws at the surface and the sea nibbles at the shore, forming a cavern-punctured coastline and an interior wilderness of jagged pinnacles and deep pits studded with murderous spears of razor-edged rock. The mixture of decomposed coral and the deposits of birds often forms an extraordinarily rich soil - indeed, several makatea islands, including the one named Makatea, north of Tahiti, are "mines" of commercial phosphate. The vegetation on such an island often forms an almost impenetrable jungle, hiding the pitfalls that lurk in the uneven surface of the land.

Such an island is Henderson. It rises eighty to a hundred feet from the sea, in a wedge-shaped mass about five miles long, tapering from a width of two and a half miles at the north to a point at the south. Grayish cliffs gird it nearly all the way around, broken only by two narrow sandy beaches toward the north, one of them situated in a small cove, partly sheltered from the swells that still were mounting high as the *Islander* approached.

A few coconut palms stood in tropical disorder near the cove. At the top of the cliffs a dense wall of jungle barred the way, so thick that our party literally cut their path at every step. The botanists led, swinging with heavy cane knives and laying the course by a compass. So dense was the forest that, even on so small an island, one could have lost one's way. Zimmy climbed a tall tree, in an effort to get some general idea of the terrain, but the vegetation was so thick that he could not see the ground.

Nevertheless there were some barren areas - fantastic deserts where

the bare gray makatea rose in pinnacles and spires, among six-foot pits whose bottoms and sides were eroded into sharp ridges and projections. These stalagmites, if one may call them that, rang like metal when one tapped on them with a knife blade or a stone.

Toward the interior the land sloped downward into a shallow bowl that marked the site of the vanished lagoon - now such a wilderness as I have just described. More than one pair of shoes were slashed to tatters on that harsh terrain, but the rewards, for collectors of flora and fauna, amply repaid the harsh going. Zimmy even found his favorite rhynchogonus.

It was fortunate that the collecting was good, for the one day which the party had intended to spend at Henderson stretched to a week as the weather at sea continued foul and our captain considered it imprudent to head for other islands until it abated.

Instead of improving, however, the weather grew worse. The last night at Henderson the wind shifted to the north, and the sampan rolled and pitched violently, straining at her anchors in the cove until she threatened to drive on the rocks. In the morning, one more trip ashore was made, in pursuit of a new species of insect which Don Anderson had sighted while collecting shells the day before. At mid afternoon the *Islander* bucked a head sea - the wind having shifted again - for Ducie Island.

"Not many men have been on Ducie," said the mate. "In 1820 the whaler *Essex* was cruising, north of here, when she sighted a tremendous whale. Instead of heading away, or sounding, it came straight at them. It lashed at the ship with its tail. The third blow stove in her bows, and she sank.

"The crew had time to take to the boats. There were twenty or so of them, and three boats. As I heard the tale, one boat was lost, one reached Chile, and one stopped at Ducie. The one that got to Chile arrived with about half of the men who had started in it. Some had gone mad with thirst and jumped overside, and toward the last the men were starving and some ate the others.

"There were two men who landed on Ducie from the third boat, and they stayed there until the Suffolk picked them up, five months later. They lived on sea birds and their eggs and some wild fruit.

"But they weren't the first men on Ducie. When they landed there they found the timbers of a ship's boat and four skeletons bleaching in the sun. Carved on a tree was the name 'Elizabeth.'

"Some say it wasn't Ducie they were on, but Henderson, and that they drank water from a pool in the rock there. That's why Henderson is sometimes called Elizabeth Island - from the name - name of a ship, maybe - that was carved on the tree."

But we were not to seek the skeletons or identify the fruit on which the

castaways had lived. For the captain decided that in that weather there could be no landing on Ducie. Instead, he put about in the opposite direction.

At mid-morning the low, sandy shores of Oeno lay before us, around a shallow lagoon. It wasn't a very interesting island; at least that's what the natural scientists thought. The flora and fauna on one atoll are pretty much like those on another. Apparently Keneti and I were the only ones who liked low islands, and even we would admit that when uninhabited, they were rather desolate places.

So the *Islander* didn't stay long at Oeno, or at Temoe, where she called on the way back to Mangareva to take on water and supplies and clear port for Rapa.

It would be repetitious to describe all the islands in that general area of the sea that were visited by either the *Islander* or the *Tiare Tahiti*: South Marutea even though it is one of the most beautiful of the atolls, with the gentle curve of its palm-embowered lagoon shore; Tenararo in the Actaeon Isles, with its seven prehistoric walled fish ponds; Tureia with its well-preserved maraes; Nukutavake of the ancient temples and surviving ancient chants; Vana-vana, Paraoa, and the rest. But it may be worthwhile to mention Pinaki, for its story of pirate treasure.

Pinaki, in the southern Tuamotu, is a small island, perhaps a mile and a half long, and lower than most being only about five feet high. Yet at only five hundred yards' distance from the shore, the sea is more than fifteen hundred feet deep. Landing there, one wades from the surf for a hundred and fifty yards over hard rock in about a foot of water, to the dry land surface where the trees begin. Beyond, muddy sand, in which shells are embedded, slopes down to a lagoon fringed with coconut and pandanus trees.

One may read in old pilot books that Pinaki was discovered by Wallis in 1767, and that he or some other captain named it Whitsunday, because that was the day it was sighted, but that name survives only on maps.

We had heard in Papeete of a party of Australians who had gone in search of the Tuamotu treasure, claimed to have located it, and had gone back to Australia to raise capital with which to salvage it. They had said the treasure was at the isle of Hiti.

"That," said the schooner captain who told me the story, "was a blind. If the treasure were really on Hiti, would they have said so, and then gone off and left it for months and perhaps years? No, the treasure is at Pinaki. One of my old shipmates sailed with a man who'd seen the chart.

"There were four men who had looted a church in Peru at the time of a revolution there. Then they shipped out on a schooner. They had no papers, so they couldn't enter an Australian port with the loot. They buried

the treasure at Pinaki, and then made their way to Sydney to charter a schooner as traders and so pick up the gold and jewels, little by little, and never be suspected.

"I don't know the whole story, but it seems that for one reason or another - losses at gambling, and what not - they never were able to charter a ship, and the treasure stayed at Pinaki.

"Years afterward, a man named Thompson was walking down a street in Sydney when a beggar asked him to help an old sailorman buy a dish of tea. He gave the beggar some money, and showed so much sympathy that the beggar asked him for his address. He gave it to him, though he suspected it might expose him to further demands.

"But some time later, a messenger came to Thompson with a call to go to a certain hospital. There the beggar lay dying. And he told his story.

"He was the last survivor of the four men who had buried the treasure, and he willed it to the one man who had been kind to him.

"Thompson spent years searching, but he never found it. Others have searched for it since, but no one has ever found anything."

"Perhaps it isn't there," I suggested.

"Oh, it's there, all right. But think how many years it has lain there, and the hurricanes that have passed over it. Pinaki's not much more than a mudbank. The chests, or whatever they were, wouldn't stay put in a hurricane. Washed into the lagoon, likely, or out to sea. But I say the treasure is around Pinaki, somewhere."

But there was another story. And that one was about Hiti.

Hiti, or Eliza, is the easternmost of the three Raeffsky Islands, also in the Tuamotu. The others are Tuanaka and Tepoto (not to be confused with other islands of the same name). Hiti is about three miles in diameter, is listed as "uninhabited," and has a small lagoon with no passage into it from the sea.

The story was more vague, as the mate recalled it, than that of Pinaki, but it was satisfactorily romantic. A pirate ship, he said, was plowing through a Pacific storm, after the men aboard had looted a church, also in Peru. The storm darkened the sky; the captain could take no sights, and even if he had been able to do so, those seas were, and still are, poorly charted.

The storm was one of those furious hurricanes that drown the islands, every generation or two. Driven before its power, the pirates probably couldn't have avoided the island even if they could have seen it. The ship struck, grated over the coral, dragged clear across the rim, and sank in the lagoon, where she broke up before the storm was over.

Two men survived. They nearly starved to death on the storm-stripped

atoll before they were rescued by natives from the neighboring island of Tuanaka, and eventually were picked up by a ship and taken to Sydney.

From that point on, the story resembles the Pinaki tale, of which it may be only a variant. The two survivors quarreled, one killed the other and kept the treasure chart. Years afterward, as he lay dying, he gave it to a man who had befriended him, and that man spent the rest of his life in a futile search.

As far as I know, no one has ever found any treasure on either Hiti or Pinaki. But my favorite story of those seas is the story of Hiti-marama, the lost island.

"There were many islands called Hiti," said Hiro-i-te maro-ura, whom I met in Tahiti. "The one that bears that name to-day was called Hiti-roa, the Long Hiti, and the island near it which is now called Tepoto, was Hiti-poto, the Short Hiti.

"Temoe, near Mangareva, was called Hiti-tautau-atu, and Moruroa was Hiti-tautau-mai.

"Our people also knew Pitcairn Island before white men found it. Our ancestors called it Hiti-au-rereva.

"But the most famous Hiti was Hiti-marama, which sank into the sea.

"It stood north-northeast of Pitcairn, and it was a good land fertile and beautiful. There was a reef around it, with a passage into a calm lagoon, and in the center of the island was a tall mountain, cone-shaped, and overgrown with aeho grass. From the mountain gushed springs of clear water, and there were deep, cool pools for bathing.

"Now I will tell you how it came about that that land was swallowed by the sea.

"It was in the time of Rata, the voyager, when he was king in Great Tahiti, and the land was fat with the greatness of that king. It was he whom my ancestor Hiro res cued from the great whirlpool, and Rata gave him his own ship as a reward .... "

Hiro will forgive me if I somewhat condense his involved and repetitious story. Rata's father had been swallowed, with his ship and all who were aboard, by a giant tridacna shellfish that lurked in the sea between Tahiti and Pitcairn. When Rata came of age the queen regent transferred the government of Tahiti to him and then sailed for Hiti-au-rereva (Pitcairn), her own country. Friendly forest spirits built for Rata the largest ship that had ever sailed those seas and Rata set forth in it to avenge his father. His friend Tavaa, who was a sorcerer, accompanied him and his crew, and Rata's ancestral spirits guided and protected his voyage.

He sailed into the gaping mouth of the great tridacna; his warriors cut the monster to pieces with their spears and recovered the bones of Rata's

father and other victims. Ranging farther, Rata slew also the great sea serpent and numerous other monsters. Among them was a bird whose wings darkened the sun. As the demon-bird died, a skull dropped from its beak. The skull spoke, revealing itself as that of one' of Rata's relatives whom the bird had car ried away to the lair of Puna, the demon king, at Hiti marama. The skull bade Hiro go there and rescue the victim's widow, who was still living.

So Rata set sail for Hiti-marama. "His *pahi* was the first ship with sails to enter that lagoon, and the people marveled at it, for they had only small *haveke*, with paddles."

The visitors were welcomed with seeming cordiality to Hiti-marama. A house was given them; the king's daughter and her companions came to entertain them with song and dancing and feasting until the strangers should fall asleep. But Rata's ancestral spirits warned him to be wary, and he only pretended to sleep.

As the princess arose to leave the house, she looked down lingeringly at the handsome stranger, and he heard her murmur: "Alas! you are such a fine, tall lad, to die!"

As Rata lay awake and watchful he saw men approaching with torches to set fire to the house. Climbing up under the roof, he thrust his spear through the thatch, tearing open a hole through which he and his men climbed to safety by way of a tree and reentered the ship with all their gear.

The story goes on in detail as to the many tricks that Rata played upon his treacherous hosts while he spied out the land and sought a way to gain entrance to the king's house to rescue his captive kinswoman.

One day while fishing he hooked the king's magic white rooster whose auguries warned the king of approaching events. Then, climbing to a secret cavern in the mountain, he broke open and enlarged its entrance, letting in the sunlight and thus putting to flight the king's darkness loving army of bats and winged monsters.

Before the king learned of this exploit, Rata sailed away, announcing that he was leaving for home. He remained out of sight of the island for two days while his ancestral gods stirred a great wind. Then he sailed at midnight into the bay and crossed the island to the king's house.

There lay the king, shivering with cold under a heavy pile of tapa, and they heard him say: "Good! In this gale, Rata will perish at sea."

Entering the house, Rata and Tavaa, the sorcerer, stood at either side of the king, who mistook them in the darkness for two of his own retainers. Puna grew colder and colder, under the enchanted wind, until he fell into a stupor, and all his household with him. Then Rata and Tavaa bound him to the great stone upon which captives were slain for the king's

feasts.

At dawn King Puna awoke and, struggling to wrench free, broke the stone in two. But Rata thrust his spear through the king's body, and Puna died without a sound. The guards and the people of the village still slept under the enchantment.

Rescuing his captive relative, Rata bathed her in the royal pool and clothed her in tapa from the royal wardrobe. Then, carrying her in his arms while Tavaa and his elfin assistants bore away the widow and daughter of Puna, he went down to his ship and sailed away, stopping at a fishing shoal offshore to slay the remaining demons who had served King Puna and to close forever the cavern that was their lair. The wind and sea raged ever more fiercely, but Rata's ship rode safely under the protection of the gods. Looking back, he and his company saw the waves mount higher and higher until they crashed over Hiti-marama and there was no more land there. "The last they saw of it," said Hiro-i-te-maro-ura, "was the aeho grass waving in the wind just before the highest peak sank beneath the sea."

Rata, it is said, embarked upon another voyage to explore unknown lands, and never returned. Apparently he became a Polynesian "Flying Dutchman," for mariners many lifetimes afterward told of sighting his ship, far out at sea, and of being unable to overtake it. One did catch up with him: the great navigator Hiro. The ship of Rata, manned by his ancestral spirits, was racing around an enormous whirlpool and was being drawn down into the depths. Hiro tossed them a line and towed them out of danger, and as a reward Rata gave him the ship.

As for Hiti-marama, "There may be a grain of truth in the story," said the mate. "The old charts show five islets, surrounded by a reef, northeast of the Gambiers and east of the Tuamotu. It is called Minerva Reef, and was reported by many navigators. But in 1880 a French warship sailed over the spot and all around it and found no land. A lot of islands in the Pacific have been reported, and their positions noted down, and nobody could find them afterward. Take Davis Land, for instance, somewhere around Rapa-nui. It was a long land, and high, but no one has seen it in a hundred years. I think a lot of islands have just worn away, like Falcon Island in the Tongas. You can see that island rise and fall. The volcano builds it up and the wind and sea tear it away before the volcanic ash has hardened. Sometimes Falcon is there and sometimes not. Perhaps Hiti-marama was such an island."

11

Rapa - Sailors' Paradise

THERE ARE so many islands in that sea that when they are all placed on a map of ordinary size there is not room for their names, yet many of them in fact are far apart days' sailing by schooner or cutter or native canoe and many hours even for our swifter motor sampan. One begins to realize the vastness of the Pacific only when one sails for days or weeks on end without sighting land or another ship. The entire area of our voyage appears on a chart as a tiny segment of that ocean, but it took seven months and would have taken years by the ordinary local means of transportation. The actual mileage of the *Islander* alone was some nine thousand nautical miles, equal to more than ten thousand land miles or about three times the distance across the United States.

As if beaten flat by the tremendous sun, the atolls hug the sea. A ship may pass within a few miles of many of them without sighting them, and years may pass before some of them are visited, save by fishermen blown from their courses or inhabitants of more frequented islands in search of sea-birds' eggs. Tiny and unregarded, these little worlds bask in the sun as the years pass over leaving them virtually unchanged.

But before us in those last days of June lay Rapa, almost as little known to the world behind us and, in the opinion of many of our party, the most interesting land of all we visited.

Deep in the south lies Rapa - so far that the coconut palm does not flourish fruitfully and breadfruit and papaya not at all, and in the July midwinter of the southern hemisphere the breath of the Antarctic chills the air until rain feels to the skin like melted ice. Rapa is technically outside the tropics - and yet, when a traveler with romantic notions consulted a South Pacific skipper in Honolulu a few years ago as to where he could find "the real South Sea," the captain advised him, "Go to Rapa."

It is a fruitful land after its fashion and it has the natural beauty of most high islands. But it is its people that make it interesting. They are Polynesians, like those of most of the other islands on our cruise, and they have been left largely to themselves, with comparatively little interference

or aid from the distant government of French Oceania. What the captain meant, in his counsel to the adventure seeker, was that at Rapa "native life" remains relatively undisturbed. Only relatively so; there are a few foreigners there, and ships call occasionally; the natives wear foreign clothes when they can get them and use such foreign articles as their poverty and remote situation permit them to obtain. But Rapa is perhaps as "unspoiled" as any Polynesian island save a few that are even less readily accessible.

Rapa was to be set down in bright words in the records of the expedition as the most fertile field in the itinerary, because the native forest remained in at least one-fourth of its area, making a rich source of specimens for the men of natural science. Among sailors, however, who are likely to be less interested in the advancement of scientific knowledge, the island is celebrated as a Polynesian paradise largely, I suspect, because of its surplus of women and because of their reputed adherence to the traditions of Polynesian hospitality. There is a legend current along the seaways that the Rapa women, in their eagerness for masculine companionship, have been known to kidnap unwary mariners and prevent them forcibly from returning to their ships. Some of them, perhaps as a result of their hardy and active outdoor life, are physically capable of such a feat; as one of our party expressed it: "almost any one of them would qualify for all-American end." As for the kidnapping, all I can say is that there were eighty-six unattached women on the island at the time of the *Islander's* visit, yet the ship sailed with a full crew.

Rapa's gray and green mountains towered abruptly around the bay of Ahurei, where the sampan anchored on the last day of June, eight days from Henderson Island. The island is only about six miles by five, but it is thrust skyward in peaks and ridges and pinnacles, is scored with deep green valleys, and in places falls seaward in sheer cliffs.

Ahurei Village lay scattered in picturesque confusion around the shores of the bay, its brown thatches peeping through the orange and coffee trees. A pretentious church of whitewashed stone stood in an open space a little apart from the dwellings. It was far larger than the two or three hundred inhabitants of the island could need. At one side the remains of a stone wharf preserved the memory of the time when Rapa was a coaling station for steamers on the Panama-Australia route, before the establishment of the French protectorate and the subsequent annexation.

The young women of Ahurei trooped down to the shore to inspect us and perhaps to choose. Barefoot, some clad in print dresses and some in pareu, and crowned with flowers, they stood in groups, chattering about the ship and its personnel. Few, if any, could be called beautiful, and such comeliness as any of them might possess was without benefit of makeup

or of care; the best one could say of them was that they had health and the abundant animal vitality which is necessary for survival in a laborious life.

For the tales we had heard at sea were in part confirmed in the course of the expedition's stay. "The men of Rapa," we had heard, "are sacred because of their scarcity - too sacred to do any work. They sit under a tree while the women grow the food, prepare it, and thrust it into the men's mouths."

It is true that the men of Rapa are few and that they are not disposed to toil. The disproportion in numbers is attributed traditionally to their warlike past, when each of the nine or more clans was almost always at war with some or all of the others for possession of the valleys where taro grew. The men, it is asserted, were so nearly exterminated that the male sex has never caught up. As the tribal wars have long since ceased, the more reasonable explanation is that Rapa men, being good sailors, go to sea on visiting ships and are scattered around the Pacific, some never returning home.?

The "sacredness" of the men was probably an ancient tradition growing out of their former warlike activities which left to the women the task of providing the commissary. Although the necessity, from that cause at least, no longer exists, the women still grow and harvest the crops, cut and carry firewood, prepare food, and do any other odd chores about the houses and fields. The men do a little fishing and repair their canoes and gear. The story of their manual feeding by the women doubtless is founded in ancient custom.

The proportion of women to men, we were told, is about four to one, and girls enjoy complete freedom from the age of about twelve. To retain standing in the church, however, they must marry, eventually, and a wedding in Rapa is an important event. As offspring are highly regarded and eagerly desired, the marriage is on trial for the first few weeks. When intentions have been announced, the gendarme posts a proclamation on a tree, and leaves it there for a fortnight. A feast follows. On the morning of the wedding, two women conduct the prospective bridegroom into a house and examine him - completely and thoroughly - for fitness. If he fails to pass the tests, they can call off the wedding. If he is found worthy, the bride's nearest relative leads him by the hand into the church and all the other relatives and guests follow, two by two. Gifts are presented, and feasting continues for two days. The bride groom is expected to contribute to the feast and to give gifts to the bride.

Once a marriage is confirmed, it is usually permanent, we were informed, and the married couples, having had their fling in youth, are said to remain fairly steady and faithful. When a wife dies, we were told further, the widower must marry her nearest female relative. Husbands are

scarce at Rapa, and are not to be wasted.

Life at Rapa is made more laborious by the circumstance that apparently almost every woman's taro field is on the other side of the mountain from her home. Consequently, the day's work entails a hike over the mountain to the field and back to the thatched house of reeds and grass. All this climbing has made the women amazingly lithe and strong. As our scientists trudged wearily over the muddy trails, bending under moderate loads of plant specimens or other finds, groups of Rapa women would trot blithely past them, bearing on their shoulders great bundles of taro which one of us would scarcely venture to lift, and laughing and chatting as if they were on a picnic.

The growing of taro is one of the most taxing forms of agriculture, involving heavy labor in preparing the ground, tamping the field so as to hold water, erecting a dike around it, and diverting a stream into it. The roots are large and heavy; they must be peeled, scraped, cooked underground, and then mashed with a stone into the paste that is called, in Hawaii, poi and in some other islands, popoi. Where taro thrives and breadfruit does not, poi is the main staple food. At Rapa the cooked roots are pounded with a stone instrument on flat rocks in streams, where water is at hand to thin the sticky mass to a manageable consistency. A woman sits astride a stone, with feet dangling in the water, lifting the heavy pestle in a regular rhythm, often to the accompaniment of song. The poi made from the taro that grows at Rapa is white, rather than the blue-gray or pinkish purple of its relative in Hawaii.

Besides taro, there were various lesser native food plants and the introduced oranges, which were of the same type as those in Tahiti. The only commercial crop was coffee, which had been introduced from Norfolk Island by English missionaries many years ago. The yield, amounting to twenty tons or so a year, was shipped to Tahiti. It was reputed to be the best coffee in French Oceania, grading highest and most uniform in quality. Indeed, when roasted moderately in an outdoor oven and not burned to a crisp in the French fashion, it had an aroma and flavor equal to the best in the world - or so it seemed to our party at the time.

The coffee grew in scattered small groves, from hillside to hillside, and with little care. The women picked the berries as they ripened - one by one, by hand - stripped the outer hulls off with their teeth, and washed the kernels by hand. It was said that some years back the government in Tahiti sent a stripping machine to Rapa, but the men wouldn't turn the handle, and the women adhered to the old custom of chewing off the husk. The machine? No one knew what had happened to it, said one; another thought it had been sent back to Tahiti.

The I*slander* lay snug enough in the shelter of the cliffs, for the bay

bites far back into the land, the roadstead is deep, and the mud and coral bottom holds anchors securely, despite the frequent violent squalls that strike down from the mountains. "There's room here for twenty ships, declared the mate. The channel through the reef was tortuous, but fairly well marked. There was no surf inside the harbor, and the tide - high regularly at fifteen minutes past twelve had a range of only two feet. The land lay around the harbor on three sides, like an amphitheater, and the reef and a beacon islet guarded it on the fourth.

The party made its headquarters aboard ship, partly be cause it was more convenient to work there and partly be cause there was little accommodation ashore. There were only two houses of European style, one occupied by the gendarme who represented French colonial authority, and the other by a trader. The native habitations were walled with sticks or reeds, thatched with bundles of grass or of leaves, and looked much like the Hawaiian grass houses which have now disappeared except as museum pieces. Often they were enclosed by a rude but neat fence of poles. Windowless, they were dark and stuffy within, lighted at night by the smoking flare of strings of candle nuts. They were furnished with mats and infested with regiments of fleas.

The collecting field of the expedition lay largely in the interior, in the precipitous mountains where the endemic forest still flourished - except in areas where, to the grief of natural scientists, the ancient woods had been burned off by the native method of clearing. Collecting was hard and uncomfortable work. The damp cold of sub-tropical midwinter chilled the bones; wind and rain beat down. Yet of thirty-two days at Rapa, at least some of the party were in the field on twenty-nine. For two days a storm raged so violently that scarcely any one stepped outside the cabin. The other non-working day was "Tiurai," as it is known throughout French Oceania - the fourteenth of July, Bastille Day. It was observed at Rapa with sports and a community feast.

Often the field collectors came upon the ruins of ancient forts and terraced villages, dating from the time when Rapa was a land of war. There are said to be thirty of these fortified places, situated strategically for the defense of fertile valleys. It was these that gave to so many of the summits a sawed-off appearance, for the peaks had been trimmed down to afford a site for the homes of chiefs where they and their best warriors could detect the approach of an enemy from afar and rally to the defense. Below, on a series of stone-faced terraces, had stood the houses of the commoners. Sometimes a row of house-sites occupied the edge of a sheer cliff.

Usually these villages could be reached only along one narrow ridge. Across the ridge still remained a deep ditch, choked with shrubs and vines.

The vegetation, we were told, was planted in the old days to conceal the depth of the ditch and to entrap the enemy, who could be ambushed while floundering through it. Many of the villages had been equipped to withstand a siege, with storage pits for food and rock basins in which to catch rain water if no spring existed within the fortified area.

It was interesting to learn that this tribal warfare had once developed, as in Hawaii, a leader who was able to subdue the others and unite the entire island in one domain. This Kamehameha of Rapa was Te Raau, who flourished just before the first permanent missionaries arrived from Tahiti. It was then, it is said, that the people came down from the scattered mountain villages and clustered together near the harbor and the church. But their fields remain in the old places, in the valleys over which brood the remnants of the ancient forts and the fierce spirits of their guardians.

Wild horses and goats - descendants of domestic animals introduced from other islands-roamed the interior. The natives made no use of the horses except to amuse themselves by chasing them with sticks and stones, but the men would sometimes round up goats on the edges of cliffs, where the only escape was to jump into the sea. Goat meat, along with taro and poi, formed an important part of the expedition's diet at Rapa. The supplies that had been brought from Honolulu and augmented at Papeete had been exhausted; some had been spoiled by sea water that had spilled into the holds in the *Islander's* stormy voyaging, and the party was "living off the country." There was still some sugar and a little corn meal. Foraging at Rapa produced a little flour, sixty pounds of rice, a few fish and ducks, and some goats and chickens. The fare was varied somewhat with oranges, which were fairly plentiful, and bananas, which also grew on the island despite its far southern situation, and for a few days by vegetables from the garden of a Japanese resident.

For all that month our men searched the precipitous peaks and ridges. The botanists scaled two-thousand-foot Perahu, the roof of the land, which natives said never had been climbed by white men. Their rewards were abundant. "New species," said the official report, "were found nearly every day." The entomologist added with delight that "the headquarters for the genus *Rhynchogonus* (his pet quarry) "seemed to be here," although his fingers were often so numb with the cold that he could scarcely manipulate his forceps to pick up the specimens.

Returning at evening to the supper of taro and goat meat aboard the *Islander*, the scientists would sort and preserve their collections. Those who had no such work to do would sit yarning or visit friends ashore. From the deck, after dark, there could be seen little glowing lights traveling a zigzag course up the hillsides. This puzzled the newcomers at first, since there could be no torchlight fishing on the mountains. The

explanation, however, was simple. The young women, it seemed, maintained caves in the mountains for love-trysts. Each cave was furnished with a mat or at least a bundle of rushes or leaves, for comfort. All having been prepared during the day, the charmer led her sweetheart by torchlight to the nest.

There was a side trip to the only nearby land - Marotiri, between forty and fifty miles to the southeast. After three weeks of waiting, the wind abated sufficiently to permit a landing there. That day was the only one in the entire month and more on which it was so. Even then, it was possible to go ashore only by leaping from the stern of the landing-skiff to an almost vertical cliff. For Marotiri is a cluster of eight or nine pinnacles of rock, the highest rising to perhaps two hundred and fifty feet, thrusting up from the water within an area of about two miles. Yet in three hours there the botanists and the entomologist obtained several species - including, to the bug-hunter's delight, four kinds of Rhynchogonus. "The two hours I spent on the southeast rock," he reported, "were the most profitable and exciting two hours of collecting I have ever done. It was a real thrill to be with the first party of naturalists to land on this strange, barren-looking rock."

It was at Rapa that the *Islander* came nearest to disaster. The botanists' drying-house was a makeshift structure aft of the cabin. Plant specimens were pressed between sheets of paper and wooden slats and hung over a battery of kerosene lanterns. Apparently one of the sheets of paper had slipped down and been caught by a high-licking flame from one of the lamps. A sheet of fire roared up - and below deck, only a few feet from the drying-house, were the drums of fuel oil that fed the engine and the square tins of gasoline that drove the outboard motors of the auxiliary boats. Some drums of fuel were on deck, too, a few feet forward.

Tane, the Tahitian sailor and assistant cook, rushed to the scene with a mat from his bunk. Others who were aboard joined him, beating at the flames with mats and blankets and anything that came to hand. Water is not for use in fighting an oil fire; it spreads the blaze. For a time it looked as if the *Islander*, with all the specimens and the remaining supplies, would be lost. But our crew fought so vigorously that the actual damage amounted to a scorched roof and about ten per cent of the plants in the drier. Two days later the *Islander* left for the Austral Islands.

Polynesian youth: daughter and niece of the chief of Tepuka in the Tuamotu Islands.

12

The Tidy Australs

THE *Islander* reeled and plunged through violent seas for two days on the three-hundred-mile run northward to Raivavae in the Australs. Rolling and pitching, and shuddering with the shock of tons of water which the wind hurled over her starboard bow, she chugged valiantly on, while those aboard who were not on watch clung precariously to tossing bunks in the tightly battened focs'l or the more spacious but, in that weather, less comfortable cabin.

Our party had long since become accustomed to sleeping, on occasion, braced between headboard and footboard to avoid being thrown out on the floor. But it was a welcome sight when the steep green hills of Raivavae and the white line of surf on its eight-by-four-mile barrier reef, studded with islets, hove into view, and all were glad when the *Islander*, after skirting the reef for a mile or more, nosed into the pass and slipped along the shore to the decrepit wharf at the village of Raiurua.

Raivavae is a rugged island, about four miles by two in size and fourteen hundred feet high at its maximum elevation, the peak of Hiro, and it shelters perhaps a thousand Polynesians and a few Chinese. Raiurua is a neat and placid village with assiduously swept streets between houses of white coral plaster, thatched with pandanus leaves. There were coffee groves on the hillsides, manioc fields in the valleys, and an atmosphere of quiet contentment over all.

Provisions and fuel by this time were even further depleted. The captain and the commander considered leaving some of the party at Raivavae and running the *Islander* back to Tahiti to replenish supplies. But the Chinese, as often happened in the course of the cruise, came to the rescue. They provided kerosene for the botanists' drier, bread and rice for the galley, and even some canned food. It was decided that by restricting the use of the motor boats - which meant more walking - we could scrape through.

Although Raivavae is less often visited than many islands, the natives seemed only mildly interested in the strangers. During the fortnight the

party spent there, the villagers went about their own concerns without taking much notice of the visitors. They did, however, invite the *Islander's* company to the feast that accompanied the dedication of their new church.

The church was built, like the houses, of lime burned from coral and mixed with water and sand, and thatched with pandanus leaves. It stood about two miles from the village, since it was to serve worshipers from four other villages besides Raiurua. Rain poured down as the party tramped over the trail to a big temporary structure of palm leaves and thatch that adjoined the new building. Within were two or three hundred natives, dressed in their best foreign clothes for the occasion, grouped around long tables spread with ti and banana and taro leaves. In a nearby hut a cook was brewing thirty gallons or more of the fragrant dark Austral Islands coffee, and from the cooking pits arose the rich aroma of two dozen baked pigs and in numerable roast chickens. On the leaf-platters lay heaps of Austral Islands *po'e*, made of coconut, bananas, and manioc; fried cakes of manioc and bananas; white mounds of fermented coconut; quantities of taro-and-coconut pudding. The coffee was mixed with sugar to the consistency of a syrup, and served in a few cups which were passed from hand to hand.

Most of our party wandered discreetly away before the natives trooped into the church to hear a two-hour sermon delivered by their pastor, an earnest Polynesian ordained by the London Missionary Society. But those who had a taste for Polynesian music were there for the *himeneraa* that followed.

A *himeneraa* is a community songfest, to which no mere description can do justice. It must be heard, to be appreciated. The word, incidentally, is derived from "hymn," and not from "Hymen," as was evidently supposed by the translator of titles for the Gauguin exhibition which toured the United States a few years ago-who rendered *himene* (song) as "wedding feast." The music is probably borrowed in part from hymns, but has been adapted to the native voice and mode of expression until it has become as characteristic of Polynesia as the less melodious ancient chants. A *himene* usually starts with a solo phrase by a soprano, beginning on a high, almost falsetto note. Defying most of the known laws of harmony and progression it proceeds, gathering volume as one group of singers after another breaks in, the choirs of women swinging into a rough counterpoint and the men grunting a deep, rhythmic accompaniment, suggesting the blast of the ancient conch. The total effect is not quite like anything to which it might be compared. There is something weird and wild in it, perhaps a natural development from the prehistoric pagan chants, conveying something of the deep, nature loving, mystic Polynesian soul.

The singing went on for hours and the whole procedure was repeated the next day. In matters of this kind, Polynesians have tremendous endurance and no notion of moderation. After all, since the native wars and incidental ceremonial cannibalism have been abolished, it's about the only fun they have.

The *Islander* party followed its usual occupation of tramping over the rugged country in quest of scientific specimens, and after about a week the sampan moved to another anchorage off the village of Anatonu, from which the scientists explored the steep, dry, burned-over eastern end of the island.

There was one more native feast before the expedition left Raivavae. Taputu, the paralyzed and bedridden retired minister, was dead, and the population of the island assembled in and around his home at the village of Mahanatoa to honor his memory. Fourteen pigs and two beeves were slaughtered for the feast, and with much singing of *himene* and long-drawn, high-pitched ceremonial wailing, the islanders bade the reverend gentleman farewell. The solemn notes of their chanting drifted across the hills of Raivavae as the brightly-clad but sincere mourners followed the packing-case coffin to the cemetery.

Perhaps the sound was not unlike that which in former days accompanied the ceremonies in honor of the great stone gods which we had seen in Papeete where, brought from Raivavae, they guard the entrance to the colonial museum. These ancient sacred sculptures, executed some what in the style of a primitive Maillot, impressed me deeply. They are massive - the larger one weighs some six tons - and ample in every feature. Moana-hei-ata, I was told, one of them is called: The Sea Wreathed in Cloud. A colossal stone goddess, whose roughly sculptured face wears an expression of deep serenity - a symbol, it seemed, of Polynesian calm.

The schooner that had brought the sculptures from Raivavae to Papeete was sunk, later, by the wrath of the gods, natives said. In nearly all Polynesian countries it is considered unwise to tamper with sacred images, even though they may not have been worshiped in a hundred years. I had no opportunity to check on the cause of the sinking, but I didn't doubt that it had occurred. Inter-island ships haven't a very long expectancy of life. Poorly charted reefs and shoals, changing currents, unsafe anchorages, intricate channels, and the low visibility of coral islands, together with the haphazard navigation methods of some native skippers, account for a high maritime mortality in those seas. A schooner will be "paruru-ing,' as the phrase is - that is, riding up and down off an island which has no harbor or anchorage. The native at the helm dozes; wind or current shifts, and the ship grinds on the reef. At least a dozen

vessels, including the only steamship in the islands, were lost while we were in those waters. And again we had reason to bless the stout timbers of the *Islander* and the seamanship of her captain as we made the rough night crossing from Raivavae to the oval island of Tubuai.

It looked like two islands as we approached, until on nearer view the low, marshy land appeared between the two mountain masses of Taitaa and Tonarutu. Eight and a half by five and a quarter miles of barrier reef lie around the six miles by three of land, and between them sparkles a sheltered lagoon in which small craft can sail entirely around the island. On the reef stand five small islets, haunt of colonies of beautiful white terns.

Mataura, the village off which we anchored, was much like the villages of Raivavae, and the island not much different, except that greater areas of it had been burned over, to the dismay of scientists. But the view from Mount Taitaa, where a little of the native forest still survived, was worth the toil of the thirteen-hundred-foot climb. Over a carpet of delicate moss towered bright green star-leaved candlenut trees, wreathed with wild orchids and inter spersed with half a dozen kinds of ferns.

A relic of H.M.S. *Bounty* still lingered at Tubuai traces of the earthen walls thrown up by the mutineers when they attempted to settle there before they colonized Pitcairn.

Continuing bad weather delayed our field work and forced the *Islander* to move to a new anchorage off the tranquil village of Tahueia to avoid the heavy swells that poured over the reef. The captain had been told he could get ample supplies of fresh water at Tahueia, but he found only a few inches of very stale rain water at the bottom of a cement tank.

The weather improved, but the swells gave us an uncomfortable night at sea between Tubuai and Rurutu. Some were on deck, however, watching the play of moonlight on the waves, when a whale emerged no more than a hundred yards to port. The monster cruised along, parallel with the ship's course, for several minutes, then cut across the broad band of moon rays and spouted into the brilliant shaft of light - an illuminated fountain, a jet of molten gold.

At Rurutu we anchored in the open sea, for there is no harbor. The island, which is practically a single mountain about five miles by three, has no barrier reef offshore, but only a narrow fringing reef, close to the land, through which the shallow channels admit only small boats.

Although fish are less plentiful there than at most islands, the natives are skilful fishermen, and our crew, accompanying them on spearing expeditions, added seafood to our scanty larder. The natives, indeed, we were told, going to sea in whaleboats propelled by paddles instead of oars, spear such large marine game as porpoises and whales, both for food.

Wild ducks are hunted along the reef and, as at Raivavae, taro, coffee, and manioc grow in the cultivated lands.

From the village of Moerai our party combed the burnt forests and the shore-side cliffs that had been formed when the old coral reefs had been lifted out of the water to a height of some 150 feet. The tops of the cliffs were densely forested with casuarina, purau, and masses of tall ferns. Even far inland, these limestone formations cropped out, giving way to volcanic rock which contained, I was told in Tahiti, iron pyrites and traces of platinum and gold, and then to "younger" lava, full of pumice.

Moerai and its sister villages, Avera and Hauti, were as neat as those of Raivavae and Tubuai, with their stone and lime-mortar houses and well-swept streets. The people of these islands are fairly typical of the average Polynesian who has accepted what he can use, in his circumstances, of the white man's civilization and grafted it upon his own. They seemed frugal and industrious, even enterprising. For, although trade had fallen off at the time, they had owned and operated, cooperatively, their own schooners, trading with Tahiti and other islands. I saw one of these schooners on the beach at Fareute, a harbor district of Papeete. It had been propped up with stout stakes and patched with mats; other mats shaded and partly enclosed the deck, and a washing was fluttering from the remains of the rigging. It was serving as the home of a Rurutuan family. Every morning I used to see the men of the household sweeping the deck and shaking out the sleeping-mats. Matini, captain of the *Tiare Tahiti*, whose home had been at Rurutu, confirmed the existence of a custom that diverged amusingly from what we had observed of household economy in many islands: at Rurutu the men did the housework.

The natives of all these islands, like most Polynesians, had long ago been converted - at least nominally - to Christianity. At Rurutu, this had come about by accident. One of their seagoing canoes had been blown out of its course and eventually made port at Raiatea. There Aura, captain of the canoe, came into contact with missionaries and the work they were doing, and was so impressed with it that he remained for several months at Raiatea for instruction before returning to Rurutu. Wyatt Gill recorded that Aura later revisited Raiatea, bringing with him the sacred images of the old native faith, to be destroyed, and reporting that all the people of the Austral Islands had become Christians.

Rurutu was so badly burned over that it made a poor collecting ground, but our stay there was notable for an adventure of three of our number. The weather was still bad - so bad that, rather than put to sea, we stayed there several days longer than we had intended. One evening a stiff southwest wind was hurling a tall surf against the reef, and the *Islander* was lunging in her anchorage. Tane, the Tahitian sea-cook, who was on

watch, shouted down to the foes'!: *"Te poti! Ua hemo te poti!"*

That meant that the motor-boat we used for landings and for excursions in lagoons had broken loose from its mooring at the stern and was drifting toward destruction on the reef.

Enoka, the engineer, leaped into the sea and swam toward the boat. Katiu, the Tuamotuan sailor, and Mac, one of the volunteer crewmen, followed him. It was a race against wind and current, in whose grip the boat drifted with surprising speed. But Enoka, born and brought up in Hawaii, was a mighty swimmer. Gradually he overtook the drifting craft. It was only a few feet from the surf when he climbed aboard. There were few seconds in which to act. He tugged at the starting-cord. Once - no response. Again - and the welcome throb of the motor sounded amid the crashing of the waves. That was pure luck. Ordinarily it took half a dozen or more attempts to get that motor started.

Enoka grabbed the tiller and swung the bow away from the menacing reef. He was just in time. In a moment more he would have had to dive into the water at risk of being hurled upon the rocks himself. But now, in control of the boat at last, he picked up his companions, who were still struggling to overtake him, and headed for the sampan, which thereupon moved to a safer anchorage in the lee of the island.

Rurutu at that time was the home of three Americans who had exchanged the cares and stresses of civilization for those of the primitive life. Two were a couple from California. They had planned for years to go to the South Seas, but circumstances had forced several postponements. At length they had simply "upped anchor" and left, and had settled at Rurutu. The first year or two had been hard, as most pioneering is, but they were "over the hump"; their fields of native and foreign vegetables were producing, and they were enjoying a frugal but comparatively unharassed life. They had musical instruments, on which they played from a sheaf of scores copied by hand from sheet music in the San Francisco public library. They grew their own food and coffee and a little tobacco and they seemed happy. The apparent success of their venture was extremely interesting to us, who knew the difficulties of adjusting oneself to such a life and who had heard of many who had tried it and failed.

The third American was a young man from Seattle who, like Steve of Mangareva, had married a native girl. The couple lived in native style, growing sweet potatoes and taro and keeping pigs and chickens around their thatched house in the hills. This household, too, seemed successful and happy. The young man told us he had been there four years. Aside from these three, the only white persons at Rurutu were the French administrator and his wife.

Rimatara - the name has always enchanted me - eluded us for hours as

we approached it in an overcast morning after an overnight run of eighty miles from Rurutu. The island is as beautiful as its name. It is almost round and very fertile where the upraised reef and ancient lava have been exposed to the weathering of ages. It is girt, like Rurutu, witch limestone cliffs, interspersed with marshes which were once lagoons between reef and mainland. Small streams flow into the marshes and seep out under the cliffs to find the sea. A new reef has grown up around the island, in most places close to the shore, but curving out in one spot around a beach of white sand to form a beautiful lagoon off the village of Motuoura, which reposes in the shade of tall, drooping casuarina trees. Its principal disadvantage is the abundance of mosquitoes which breed in the marshes.

Though fishing there is poor, the natives of the three villages - Motuoura, Amaru, and Anapoto - live well on their taro and sweet potatoes, their coconuts and bananas, their oranges and breadfruit, and numerous pigs.

Rimatara has no harbor, and we had to wait a day and a night before the weather permitted landing. The botanists and shell collectors didn't think much of Rimatara, despite its beauty. Almost all of its three thousand acres had been burned over, destroying the native flora and fauna. But the entomologist rejoiced. He found a Rhynchogonus which had adapted itself to changed circumstances, feeding on the leaves of the hau or purau tree after its native pastures had perished.

How little is known of some of the islands was indicated by our experience at Maria or Hull Island, a hundred and twenty miles northwest of Rimatara. Although some fairly accurate descriptions must have existed, for the island was reported a hundred years or so ago, it had been described to our party as a "high" or volcanic island, and since there was no record of its having been studied by scientists, our men of learning had hopes of discovering new species there. But Maria proved to be a cluster of four coral islets on a triangular reef about three miles across, lovely with the peculiar beauty of the atolls but yielding little of interest for the collections.

It had no inhabitants, but lay, deserted and lonely, in the sunlight, encompassed by the vast sea. There had once been a copra plantation on the islets, but the enterprise appeared to have been abandoned years before. The only visitors who look upon it from time to time are men from Rimatara who go there to fish and to hunt young sea birds and eggs in the nesting places on the sands.

Maria is also a "treasure island" as well as a former surf-walled prison for criminals from the Austral Islands. We did not linger to seek the pirate gold that is reported to be buried there. The island had been well dug over, some years before.

As the four islets of Maria sank from view astern and the bow of the *Islander* plowed northward toward Tahiti, university faculty members and others aboard who had duties at home remembered with misgivings that we had been due in Honolulu nearly a month before, and had many islands yet to inspect before our feet should tread upon pavements again.

13

Papeete Is Like That

HALF A year in the more unfrequented areas of the south east Pacific modifies one's point of view. Tahiti, to the world back home, connoted tropical simplicity, something of the primitive, and all that is associated with the term, "South Seas." But to us, after those months at sea and ashore on islands where life is really close to nature, Tahiti spelled civilization. It meant piped water, shower baths, green salads, fresh - if tough - beef. It meant a metropolis of sorts, compared with the thatched villages and uninhabited isles where we had been. It meant letters from home and meetings with people who spoke English; it meant news of the world and balanced meals on covered tables, with comfortable chairs drawn up to them; it meant ice, medical and dental care, and cold beer.

So, with at once a twinge of regret at leaving the Jess sophisticated settlements on the fringes of the Oceanic Establishments and a thrill of anticipation at turning again toward home, our scattered groups began converging on Papeete harbor - the *Tiare Tahiti*, bowling in from the Tuamotu and the Gambiers; assorted copra schooners from the Cloud of Islands; the *Islander* from the Australs.

The schooners lingered at obscure copra ports, or tacked hither and yon in unfavorable winds; the *Tiare Tahiti*, near the end of a voyage of weeks, lay becalmed an entire day within sight of the peaks of Tahiti while the crew chafed to be ashore to join a festival - but the *Islander*, independent of wind and with Yoshio and Enoka nursing the motor to a steady speed, made the run of four hundred miles in forty-nine hours.

There had been, indeed, some doubt in Tahiti that the *Islander* would ever arrive. Members of detached sections of our party, who had filtered in from outlying islands ahead of the mother ship, admitted anxiety as reports came in of disasters to other ships, and even the expedition's local agent, taciturn but competent Sam Russell, professed to have no word of the *Islander's* whereabouts. The sampan was equipped with radio apparatus, but it had not been in use for some time. Captain Anderson, who had served as an operator with one of the major wireless companies,

explained the interruption of communications as the result of a technicality. In writing examinations as a marine operator just before the voyage he had answered the questions correctly but in the wrong order, he said, and thus had been delayed in obtaining a license.

Meanwhile, Papeete drowsed in the fragrance of jasmine and gardenia, the heavy aroma of vanilla, and the acrid scent of copra. Tropical life was bursting everywhere into bloom and fruit, and everywhere moldering into decay. Rain fell in gusts and torrents that spurted small geysers of mud from the unpaved streets that had been furrowed dust, and the sun dried those streets again in a quarter of an hour.

Time can be long in Papeete. On the fringes of civilization, where the world of America and Europe and the world of the South Seas touch and partly merge, perhaps to the detriment of both, time impinges again upon the consciousness as it does not do in the remote atolls. In the coral lands and in some of the less frequently visited of the high islands, one can become a part of the Polynesian world, sink into its calm life and be, for a while at least, content. But in the ports where the liners come and go, the tentacles of one's own world creep in and coil about the heart, pressing it to unrest.

It is one thing to be a tourist in Tahiti, with a fat book of traveler's checks in the pocket and a sizeable sum deposited locally, in accordance with regulations, to ensure one's departure. It is another thing to be stranded there with a slender and diminishing store of paper francs, awaiting a ship from which no word comes in a season whose marine news is shot full of disaster.

So it was a welcome relief, touched with grateful surprise, when the unmistakable rhythm of the diesel throbbed from afar through the evening to those lying on their mats near the harbor, and it was a happy reunion aboard the battered, fire-scarred sampan when she drew alongside the wharf. The good companions were together again, all but a few. But in those anxious waiting days, there had been some joy to be distilled out of the wine of Tahitian sunlight and the caress of an almost tideless sea; some relaxation in the companionship of a singing people, a brown folk who, even though somewhat more touched by sophistication and shorn of something of their primitive dignity, were still akin to the people of the wreath-shaped coral isles.

Papeete seemed very urban after the more primitive life we had led at sea and ashore. Its crowds of people and rows of shops, its gently honking automobiles and innumerable bicycles impressed us with a feeling of bustling activity if not to the same degree that they astonished Tupu, the Tuamotuan youth who had joined the crew of the *Tiare Tahiti* at Tepuka and who had never seen a wheeled vehicle before.

"Aita e hope no te pereoo!" he marveled. "There is no end to the wheels."

"You never told us," a reader reproached me not long ago, "what became of Tupu." Tupu, that faithful soul, at last report wore the red top-knot of a sailor on a French gunboat. Matini, captain of the *Tiare Tahiti*, became a gendarme in Papeete. Bob Burrell, owner of that trim craft, sold her and settled down to the life of a small planter in Tahiti. And the *Islander*, after nearly foundering in heavy weather in the vicinity of Christmas Island while on another voyage, was towed to Hilo by a Coast Guard cutter and eventually rejoined the commercial fishing fleet of Honolulu.

Papeete had electric lights - if somewhat dim ones - generated by an ingenious process of extracting gas from burning coconut husks and coconut shells. It had a brewery, operated by a jovial Milwaukeean, which produced a palatable four per cent beer. It had an ice plant, a barber shop, a post office, a bank, and numerous government bureaus. It was our impression that from the French point of view the colony existed largely to furnish government jobs for sons, younger brothers, nephews, and cousins of men who were influential in Paris. At any rate, the place seemed top heavy with officials.

The streets, though unpaved, were long and regular, and lined with low, tropical-style buildings, balconied or with wooden or corrugated iron awnings over the narrow raised sidewalks of the business section. The city had a lavish public laundry and comfort station, beneath which flowed an unceasing stream of the mountain water that is so abundant on the island. It even had night clubs and a motion picture theater. And it was the home of nearly half the sixteen thousand people of Tahiti.

Here the tattered, bandaged, and permanganate-smeared members of the expedition trooped ashore to bargain in pidgin Tahitian with Chinese merchants, to have civilized haircuts, to be fitted for linen suits at five to seven and a half dollars each, and to photograph the sign that read "Lousi Tailleur"; to shop for carved wooden images, to try on hats of pandanus leaf or cane stalk with headbands of delicate shells; to buy spirally-peeled Tahitian oranges, melons, insipid little cakes, and tiny cones of synthetic ice cream from the vendors whose carts stood at nearly every corner; to sit in the park and enjoy the flow of life that bubbled out of the flower-hung streets and alleyways of the island town.

Not for these things alone, of course. There was work to do-mainly cleaning up. Both the *Islander* and the Tiare *Tahiti* were drydocked at Fareute to be scraped and repainted, and the latter vessel to have her bottom nailed together again. Though the *Tiare* was a clean-sailing ship, she had one structural defect: the nails had been driven in from the bottom

upward, and cement had been run in from above for ballast. The result was that in a long voyage the motion of the hull caused the cement to pound the nails out, and presumably if the ship stayed long enough at sea the bottom would drop away entirely - not a comforting thought when there was a mile or two of salt water under the keel.

The *Islander* had to be de-infested of the hordes of parasitic insects that had invaded her. Cockroaches one always has, in those seas - the large, flying, and at times carnivorous kind - and one becomes accustomed to them. But they were only one variety of the assorted vermin that had been picked up in a half year's cruise. So the hatches were battened down and cyanide liberated within for an entire night - after the crew had arranged to sleep ashore and inspection had been made to see that none of our native friends were taking a nap below.

The engine had to be taken apart and put together again, with delicate readjustments which were a mystery to all but Enoka and Yoshio. And everything was scrubbed and scraped to make the ship as presentable as was possible in her travel-worn condition for the voyage through the Isles Under the Wind and home.

Most of us continued to make our home on the ship, returning at night from shore excursions to spread our mats on the deck or on the roof of the cabin, the pilot house or the drier. It was jolly aboard ship in the early evening when the Tahitian young men who had attached themselves to the ship while in port, to obtain free meals and to help in a desultory fashion with the work, would bring friends aboard to dance and sing. A collection would be taken among the ship's company for the price of a few bottles of cheap light wine, without which no party in Papeete is a success. Then guitars would throb in quick moving, sinuous rhythms; gold-brown voices would sing sad and sentimental or unabashedly bawdy lyrics, and flower-crowned girls, who lived precariously but unperturbed the free life of the hybrid port, would dance bold staccato steps on the deck beneath the slowly whirling stars. There was a heady perfume in the air, those nights, of salt breeze and copra and vanilla, of jasmine and Tahitian gardenia and all the mingled aroma of ship and port. The nights were caressing-soft; we drank mellow moonglow quenched in music and in wine.

Papeete was astir early in the morning, with throngs gathering in the market place, open buses rumbling around corners to pick up freight and passengers for the trip around the island, and a procession of men and women bicycling to their work down the long street that runs parallel to the shore and which is known as the Broom Road because, according to legend, it is, or used to be swept with brooms.

About an hour before noon, as in most tropical lands activity ceased. Shops and offices closed, not to reopen until mid-afternoon, and people

sought their couches or their mats to rest through the heat of the day. Business, such as it was, revived somewhat at about three o'clock. But Papeete really awakened in the early evening, just as the sun was sinking in a blaze of scarlet and gold behind the jagged mountain pinnacles of Moorea, across the channel.

Out of the tunneled foliage of residential streets and the rutted alleyways behind Fareute, the citizens would troop toward the waterfront and the park, to stroll or to sit on the stone benches, greeting friends, gossiping, making rendezvous. "Street-girls," in pairs or in groups of three or four, idled through the square, exchanging frank badinage with the gendarmes who haled them once a week to headquarters for official inspection, and making casual acquaintance with sailors or infrequent tourists. Family groups, often of mixed bloods, appeared, taking their children for an airing. The vendors of food and drink and flowers were out in full force. An atmosphere of quiet gaiety, superimposed upon a deep contentment, lay upon the dimming streets and in the shadowed square.

Bustling as it seemed to us by contrast with our recent haunts, we knew well enough that by the usual standards Papeete was a somnolent town which roused itself to activity only at the monthly calls of the two liners which plied between San Francisco and New Zealand and the less frequent visits of the long, dark steamers of the Messageries Maritimes, which ran from Dunkerque through the Panama Canal to the Marquesas, Tahiti, and New Caledonia. There were other vessels in port - copra schooners, an occasional yacht, and the little tub that shuttled between Tahiti and Moorea. But these latter attracted only small crowds to watch the unloading and loading and to gossip with the crew.

On steamer day, a hum of excitement ran through the city. Staffs of business houses struggled frantically to answer a month's correspondence, while all of Papeete that had no business - and much of it appeared to have none assembled at the wharf, dressed in the best available foreign style clothes. Many of these unofficial greeters spent the entire day there.

The steamers brought, too, news of the outside world: letters, books, magazines, newspapers, some of them not more than two weeks old. No newspapers were published in Tahiti. Such news as we had between steamers was gathered from the air by the government wireless station, and a typewritten bulletin, in French, was tacked up on the front of the post office for the accommodation of any of the populace who would exert the energy to walk thither. These dispatches were usually incomplete. The most interesting stories, it seemed, almost invariably broke off in the middle with an explanatory note that at this point the "signal" was "obliterated" by interference from this or that ship at sea or from some more powerful station. A few residents had radio receivers which could

pick up American broadcasts, but these were usually so interrupted by static that little information was gathered. The most interesting, if least reliable, news source was the coconut radio": the exchange of rumors as scraps of news were garbled from mouth to mouth. Harry Bridges, the San Francisco labor leader, would have been much surprised if he had known that Papeete's "coconut radio" reported him assassinated while leaving a motion picture theater.

At about five o'clock in the morning the municipal market was in full tide of business. The market was a large, roofed enclosure of wire netting over a cement floor, and it was a hive of humanity in those morning hours. The stalls displayed every kind of island produce - "hands" of bananas and of fei - the cooking-banana that grows in the mountains; nets of purau bark filled with tart, juicy Tahitian oranges; mellow papayas; coarse bunches of Chinese cabbage; huge roots of taro and yams and sweet potatoes; pungent mangoes; avocadoes; limes for rum punches and for the preparation of raw fish; flowers, *au naturel* or twined into crown-wreaths for the head; hats of pandanus leaf or of sugar-cane stalk; hatbands of sea or land shells; fish - a bewildering variety of seafood. Here were box shaped, ugly-looking balloon-fish, thorny with spines like prickly pears; the rainbow-colored, oddly-formed reef fishes that will bite on no hook but must be taken with net or spear; small octopuses - delicious when pounded to tenderness and baked underground; big green parrot-fish; bonito, iridescent flying-fish; crabs, eels, shrimps; long tubes of bamboo filled with chopped *paoa* shellfish in fermented coconut milk, and many another local delicacy. Near every dealer lay a pile of market-bags freshly woven from coconut fronds, and another pile of long, broad ti leaves for wrapping.

It was in the market place that we lost one of our "crew." We had started from Honolulu with a canine mascot named Bubbles, described by one of our number as "a cross between a poodle, a terrier, and a poi-dog, and the dumbest dog in the Pacific." She accompanied us throughout the voyage. At Fanning Island, Bubbles had presented us with four pups, which were destined to four several fates. One remained at Fanning with the children of the labor superintendent. A battery fell on one, a few days out at sea, with fatal results. One joined the descendants of the mutineers at Pitcairn. And the fourth, hight Annie, wandered into the market place at Papeete.

Now Papeete is justly proud of its market place and watchful of its sanitation. No dog is allowed within the precincts. No sooner had Annie trotted in to investigate the enticing odors of food than she was placed under arrest by an alert gendarme and impounded as a menace to the community.

Aboard the *Islander*, the news was received with consternation. A collection was immediately started for Annie's ransom. Six months away from home, and some days in the shops of Papeete, had depleted our resources, but every man contributed a few francs. I think the assistant malacologist drew an advance on his salary for the purpose. The crew and the volunteers had no salary - or rather, to be exact, a purely nominal salary of twenty-five cents for the voyage. "Nominal" is a literal description. I never collected my twenty-five cents.

We were about to appeal to our commander-in-chief for a donation to complete the "Annie Fund" when word arrived that Annie had been saved. Great-hearted "Ruru" Spitz, the leading curio dealer and a member of the municipal council, had adopted her and paid her fine. The "Fund" remained intact for other emergencies.

Fronting on the market were several coffee shops operated by Chinese. The coffee was island-grown, roasted black and ground fine, and the brew, like that in many European countries, bore only a slight resemblance to the favorite morning 'beverage of the United States. It was served with crisp half-loaves of torpedo-shaped French bread, known locally as *faraoa Tinito* because it was baked by Chinese. The bread was spread thinly with almost liquid butter. A can of evaporated milk and a bowl of dusty sugar stood by. Sometimes a cat would leap to the table to lick up spilt drops.

Some of the coffee shops were more elaborate. On entering, one stepped into the kitchen, where lay assorted trays of European and Tahitian food, both prepared by Chinese. Pointing to the viands of his choice, the customer named the sum he was willing or able to spend and was served accordingly. One dish which was in great vogue was a mixture of rice, fat pork, and Chinese cabbage, which bore the name of *maa Tinito* - literally, "Chinese food." In an impoverished interval while alone in Papeete, some of us had subsisted largely on this nourishing, if not very tasty, concoction, because it was cheap and filling, and when the *Islander* returned, we went aboard with visions of real food. The table was set with the dime-store enamel plates and cups; we gathered around it on the small stools, and the cook entered, bearing - *maa Tinito*!

One hole-in-the-wall, which I might not have found except by accident, had I not been guided thither by a native, specialized in soups, serving nothing else. There must have been a dozen varieties. This place was popular because it was amazingly inexpensive - a meal, such as it was, for a few centimes.

Near the waterfront was Tony's cabaret-a bare, sinister looking dive. At about six o'clock in the morning the "street-girls" congregated there to drink Tony's coffee and eat his French bread, along with tubes of pickled shellfish from the marketplace, and to gossip and exchange notes on their

male companions of the previous evening. In the evening there was music at Tony's; the girls, wearing flowers in their dark hair, appeared with their sailor friends, and there was such fragile gaiety as flourishes in tropic ports. Quin's was more pretentious, with a gaudily painted front, and booths, but the atmosphere was much the same. Across the way stood shabby pool halls, operated by Chinese and much frequented by Tahitians of both sexes. Some of them, perhaps as a result of long practice at spearing fish, were deft with the cue at the game which they called *patia poro* - literally, "spearing the ball."

On perhaps a higher plane were the Cercle Bougainville and the Tahiti Yacht Club, where the genial Alex presided at the bar with his famous Rainbow cocktail and his later invention the Square Egg. I was present at the inaugural' ceremonies for the latter mysterious compound, as were a number of other visitors and several prominent residents. On the bar stood the stuffed bird which, Alex gravely averred, had laid the square eggs, and at its feet the eggs themselves, cubes neatly sawn out of wood and decorated with round black spots resembling dice. And there were out-of-town night resorts: the Moana, the Lafayette, where liquor flowed and dance music sounded and sailors some times fought with fists or knives.

Shopping - while the big, ragged five-franc notes lasted - was an amusing diversion. Most of the shops are operated by Chinese, as are most of the bakeries and restaurants. Business is conducted in French and Tahitian with a Chinese accent. The monetary system is somewhat confusing at first, since the coins and currency are known by different names than those which are stamped in the metal or printed on the paper. Five francs, for instance, is *hoe tara* - literally, "one dollar," although at the time the actual exchange value of one of these "dollars" was about thirty three cents. A one-franc piece - usually a metal token issued by the Chamber of Commerce - is *hoe toata*, literally "one quarter." Hence French Oceania is perhaps the only place in the world where it takes five quarters to make a dollar. *Fai peni* (five pence) was easy to understand but not so easy to calculate in centimes. *Etoru raera* (three reals) represented, if I remember correctly, seventy-five centimes.

Merchandise normally was sold in small quantities, except at such large-scale emporiums as Etablissements Donald, Maxwell & Company, la Societé Commerciale de l'Océanie, and the like, which outfitted ships. Cigarettes were sold in twos and threes from a broken package; no sale was too small to interest the frugal Chinese merchants. If a stranger wanted to buy a whole carton, he might get a reduced rate, or the merchant might think him extraordinarily wealthy and raise the price.

As the francs dwindled, most of us dined aboard, but there were occasional visits to the Diademe, where a locally famous cook from

Martinique served excellent French dinners at seven francs fifty and the waiters unerringly took down from the shelves the special bottle of wine reserved for each regular guest. We went more often to "the Czech's," which offered fewer courses but a menu more nearly to American taste, at five francs. There were also the Chinese restaurants proper, as distinguished from the French and Tahitian cafes operated by Chinese. They were mostly on two floors, bare and untidy-looking, but their cooks did wonders with pork and noodles, vegetables, and rice. Like virtually every one who visits Tahiti, we went to Moo Fat's. When I ordered *chow gai si min*, the waiter, surprised and pleased, inquired, "Where you learn that?"

"In Honolulu."

"Honolulu. Me long time Honolulu stop. You know my cousin, C. Q. Yee Hop?"

"Yee Hop the merchant? I was a guest at his son's wedding."

This was true enough; it had been a big wedding, with many firecrackers, much dragon's eye gin, cards and dancing, and so many guests that they were entertained in relays on two consecutive evenings.

"You know my cousin - ah, you my friend, I bring you special dish, on the house!"

There were native feasts, too - somewhat like a Hawaiian *luau* but with a distinctive Tahitian flavor. The guests - who contributed to the purchase of the refreshments - wore leis about their brows rather than around their necks, and the food, though equally Polynesian, had its local characteristics. Besides the familiar underground-baked pig and chicken steamed in coconut milk with tender chopped taro-tops, there were slices of raw fish steeped in lime juice and sea water and served with vegetable cream squeezed out of coconut meat; baked breadfruit, which tastes not at all like bread but rather more like squash; baked fei, and the like; sometimes fresh-water shrimps in fermented coconut sauce. I understand the old-fashioned way of serving this dish was to bring the shrimps to the feast alive. This necessitated some alertness in being prepared to knock them back into the sauce whenever they tried to climb out of it, but it at least assured that they were fresh.

For dessert there were small, fibrous, but sweet native pineapples, mangoes, and *po'e* made of papaya, pineapple, and manioc cooked together, strained, and immersed in coconut cream - about the most delicious sweet that Polynesia can offer.

Guitars swung into island melodies - some indigenous, some adapted from popular French or American tunes, and many of them from the Hawaiian but with Tahitian texts which, if translated literally, were even more bawdy than the originals. They seemed so only in translation. In

Hawaiian or Tahitian, they were merely innocently frank. The guests arose and danced the dances of Tahiti, one or two at a time, or sometimes a whole group in motion - never touching one another, but swaying opposite the partner; wriggling the torso, darting feet and knees in and out in a staccato pattern; gesturing rapidly with writhing fingers and swinging arms. The Tahitian music is mostly in more rapid tempo than the Hawaiian, and the dances, if less graceful, more agile and vigorous.

Twice a week a truck rumbled through the Streets, bearing a small corps of drummers who beat furiously on wooden slot-gongs and an empty oil tin to announce the current offering of the local cinema. The theater was a big, bare building, thronged at each performance with chattering, laughing Tahitians in dungarees and singlets and cotton prints. In a gallery overhead, guitars twanged and native voices sang *himene* of domestic and foreign derivation. When Tahitians like a tune, they adopt it, composing their own words. One of the most popular songs at the tune was set to the melody of a familiar hymn, bur its text was a passionate lyric of love.

The films were battered silent dramas, jerky and flickering, which had been worn out, years before, in the United States. Most in favor were custard pie comedies and westerns. As they wavered on the screen, the interpreter in the gallery carried on a rapid commentary in Tahitian, translating the subtitles and amplifying them, in versions which would have surprised and puzzled Hollywood. While the aged reels were being rewound, or spliced together where they had snapped, previews of the next performance were shown. I recall one occasion when the forth coming attraction was to be a life of Christ. As the preview of scenes from this sacred subject appeared, the orchestra which had been playing, throughout the preceding western thriller, the aforesaid hymn tune, struck up brightly that long outmoded melody "There'll Be a Hot Time in the Old Town Tonight."

Papeete was like that: casual and incongruous, gay and sad; living a day and a night at a time; flower-crowned and singing beneath sun and stars.

The *Islander* (left) and the *Tiare Tahiti* on the marine railway at Fareute, Papeete.

"Bubbles," aboard the *Islander*.

14

Loti's Pool

NOT ALL our time was spent in scrubbing decks or strolling the hybrid streets of Papeete, or loafing at the Yacht Club. There was swimming in the lukewarm water that rolls gently in upon the smooth black sand of Arne, girdled with palms, and in the cool, fresh stream of Fautaua below the falls.

"Le Bain de Loti," the place is called - Loci's Pool - a basin of mountain water a little below the six-hundred-foot cascade in which the Fautaua River plunges from the cliff at the head of its gorge. When we first saw the spot it was still wild, the stream-bed strewn with massive dark boulders, the banks densely curtained with tropical vegetation. The scene looked as if it had not changed much since the Loti of Louis Marie Julien Viaud's semi-autobiographical romance trysted there with his Rarahu, "the pretty little arum-flower, all withered now, alas!" as she wrote him after he had returned to the sea.

But while we were ranging over other parts of French Oceania, the picture was transformed. When we returned, a neat cement-enclosed pool replaced the muddy banks and tangled vegetation; picnic tables stood in a cleared space between the river and a cluster of thatched bathing cabins; a bust of Pierre Loti, supported by a stone pedestal carved with the representation of a *tiare*-wreathed Tahitian girl, added a Parisian touch to the newly-refurbished park, and gendarmes were on duty to see that decorum was observed. It was odd, we reflected as we sat with a group of merrymaking Tahitians, that one might drink, but not dance, at Loti's Pool.

From the bridge a little way from the pool a steep trail climbed amid riotous greenery to a moss-covered pile of rocks, half buried in ferns and ti, that was once a fort in the time when the French were new in the land and the martial spirit of the ancient Tahitian warriors had not died away. As in Hawaii, friction arose in the first half of the nineteenth century between missionaries of different faiths: English apostles, coming early, had acquired influence over the natives, and the Catholic fathers, who arrived in 1838, had so much trouble that French warships were sent to

Tahiti to demand satisfaction for what was considered infringement on French rights. In the absence of Queen Pomare in 1842, her ministers ceded the islands to France. When the queen returned she repudiated the cession, and there was fighting in Tahiti, the Isles Under the Wind, and the Marquesas. Pomare appealed to Great Britain but received no encouragement. So in 1846 she accepted a French protectorate, and the ferment, except for some recurring disturbances in the outlying islands, subsided. The old fort, and others here and there about the islands, remain as relics of that time.

"It was here," said Tu the son of Rai, as we stood beneath the cataract, "that the business men of Papeete were swindled.

"A stranger came. He was big and well dressed and pompous, and convincing in his manner. Everybody thought he was a rich man, an entrepreneur of industry. But he was a *Popaa haavarevare* - a deceitful white man.

"He said he was going to put Fautaua to work to light Papeete and to turn the wheels of machinery. And the business men listened. He showed them drawings and plans: Papeete was going to move forward and grow; with the power of the falls we would make many of the things here that we import from abroad.

"The business men wanted to have a share in this venture. They bought stock. The stranger imported machinery. The business men didn't understand the machinery, but they were impressed by it. They bought more stock.

"There was one other thing that the business men didn't know, or of which they didn't think. We natives knew, but the stranger didn't ask us to buy shares, because we had no money, and the business men didn't consult us. As there was no road to Fautaua then, but only a trail, they had never been here. They didn't know that the cascade is small, except just after a rain.

"Men dashed in and out of the stranger's office in town. We could hear explosions in the valley. People said the work had begun that would make Papeete prosperous as never before. And some men who hadn't given the stranger any money at first, were convinced then and bought shares.

The stranger went away. He said that when he returned there would be a grand opening. Months passed and he didn't come back. Some of the business men became curious. They sent men up the valley to see what had been done. And the men found that some rocks had been blasted from the cliff. That was all. There was no power plant, no industry. The stranger was gone, and the money was gone with him.

"After that, it was a long time before those men listened to smooth-talking strangers." Papeete has an electric light and power plant now, but

the dynamos are turned not by the water of Fautaua, but by the burning of coconuts, which is more reliable.

15

Tahiti of the Golden Haze

"LA NOUVELLE CYTHÉRE" was the name the French explorer Bougainville gave Tahiti when his ships anchored at Hitiaa in 1768. Ancient native bards called their country "Tahiti marearea," which some have translated "Tahiti of the golden haze" and some, "Tahiti of the jolly good time." The language is prolific in such ambiguities, arising from the difficulty of determining, in names of antiquity, whether the elided consonant was originally *k* or the one we render, rather lamely, as *ng*. In Tuamotuan, which retains both, there would be less uncertainty. Both interpretations can be justified by experience: as we trekked farther afield we often marked the beauty of distant mountains shimmering in that "golden haze."

Tahiti is a double island, like Maui in the Hawaiian archipelago: one extinct or dormant volcanic mass to the northwest and a smaller one, connected with it by an isthmus, on the southeast. Natives distinguish between them as "Great" and "Little" Tahiti - Tahiti-nui and Tahiti-iti. Around the shores stretch fringing reefs of coral; a little way out, barrier reefs, and between them a lagoon of varying width and of depth ranging to a hundred feet or more, into whose calm waters numerous passes lead through the outer coral.

Along the shore lies a narrow strip of fertile land, putting forth slender tentacles into deep-cut valleys through which the rain that falls on the sharp interior mountains flows to the sea. Behind this coastal zone the land lifts steeply to the wild, untenanted central masses of volcanic rock. The people live along the coast and in the lower parts of the valleys. Even in pre-discovery times this was probably largely true. We found traces of ancient settlements in the interior, but the Polynesian is a shore-dweller; if the mountain villages were places of permanent abode, it is likely that their inhabitants had been driven there by overpopulation or by defeat in war.

Around all of Great Tahiti and part way into Little Tahiti runs the Broom Road, which King Pomare, according to tradition, built of alcohol.

That is, those of his subjects who imbibed too freely were sentenced to construct sections of the road. Color was lent to this bit of purported history by the gangs of blue-clad convicts whom we saw working in a leisurely manner at the maintenance of the highway. A good deal of repair is necessary, especially in the districts that receive the heaviest rains. There the government, after sad experience of repeated washouts, gave up building bridges and simply threw in stretches of heavy concrete that dammed the numerous streams, rather than bridging them. These causeways were under water in the wet season, when highway travel became a species of navigation.

I have traversed long stretches of that road on foot, idly speculating on the odd circumstance that a kilometer, which should be approximately five-eighths of a mile, unaccountably seems to extend itself to at least eight-fifths when walked, and answering the courteous but puzzled greetings of neatly dressed children on their way to or from school. These en*fants* are taught to say *"Bon jour, Monsieur,"* to a *Popaa*, a white man. But here was a white man walking, like a native, with his overnight things tied up in a pareu slung over his shoulder; he wore white trousers, so he must be a Popaa, but white men don't walk! I have covered those same kilometers more swiftly in a snorting Citroen that lurched over the highway like a schooner at sea. But the jolliest way is by the bus that once a day starts from the market place in Papeete for the tour of the island with passengers, mail, and miscellaneous freight-a public conveyance, delivery truck, and social club combined.

"Le truc" is scheduled to start early in the morning, but it fusses about - darting around corners to pick up freight, waiting while the driver gossips with friends - until one begins to think it never will actually embark on the journey.

When it does get under way, the bus is loaded full: interior, top, running boards jammed to capacity and more. The passengers are mostly Tahitians - ample women in shapeless, gaily-flowered dresses, with wide-woven hats of pandanus or sugar-cane; men in dungarees and singles, each with his bundle done up in a pareu, the fruits of his marketing wrapped in ti leaves or arranged in a coconut leaf basket, and perhaps a roll of sleeping-mat; and all talking, laughing, and joking with the bubbling good humor that is characteristic of the high-island Polynesian. There may be a few small, cool-looking Chinese, quiet but smiling; and occasionally a Frenchman or American who lives in the "districts" and has no car. Under, over, and around the passengers and their belongings are stowed the miscellaneous packages which the bus is delivering to country residents who haven't come to town. Yesterday some one shouted to the driver, from his gate: "Bring me a dozen eggs," or "two chickens," and the driver,

though he took no written notes, has remembered the errand to-day.

At last the vehicle slides around the last corner and launches out on the road westward past the garden enclosed brick Chinese temple, the small Chinese truck gardens, and the iron-roofed frame houses of Faaa clustering around its two churches, its little schoolhouse, and the Chinese store. Seaward stretches the broad lagoon, glowing in delicate colors beneath the sun, with the yellow sand of the islets contrasting with the green and blue and purple of the water.

Farther on, the lagoon narrows and a continuous grinding roar comes from the rounded pebbles which are rolled up and down the beach by the waves. Along here is the district of Punaauia, where Gaugum lived and where most of the Americans who seek a refuge in Tahiti from the turmoil of the world have made their homes. There are many stops in this neighborhood. The driver drops a scrawny chicken, a sheaf of vegetables, or a basket of eggs at some one's gate, and the bus rolls on toward Punaruu and Paea. Meanwhile the talk and the laughter go on, punctuated by broad but good-natured jests in Tahitian at the expense of the foreigner who is squeezed between two excessively fat native women, with a large pig at his feet and the natives' bundles overflowing upon his lap. Now and then some one starts a song: a *himene* with frank Tahitian text imposed upon a French, American, or Hawaiian popular melody or hymn tune; or an *ute*, of varying text but always to the same skirling cadence.

The house where Paul Gauguin lived is still pointed out at Punaauia, fronting the lagoon. He may have lived there, but it can not have been his only home at Punaauia, for residents relate that the house which he occupied longest was· burned, after he left, by natives who feared the "spirits" of the carvings and paintings with which the artist had adorned it. His son, Emile, who lives in the neighborhood, is a mighty fisherman in the native style and a stout gatherer of mountain oranges and the fei or wild banana. Emile's mother, who served as the model for the nude in Gauguin's painting, "Nevermore," was also still living at the time of our visit. Two other models of the famous escapist dwelt near by. But hardly a trace of Gauguin's art was left in Tahiti. After the artist had been posthumously "discovered," collectors had combed the island of virtually everything that had escaped the fires kindled by his uncomprehending native associates. Taurua, the widow, would not discuss Gauguin. But Emile protested against the story that the artist had deserted his Tahitian family. He said Taurua's father would not permit her to join Gauguin when he went to the Marquesas, because the Marquesas were "a country of cannibals."

The ghost of Gauguin, the natives say, returns to stare in at the windows of the remaining house. He is disturbed perhaps, by the efforts of

artists who troop to Tahiti, trying to paint like Gauguin instead of like themselves.

The vogue of Gauguin has passed its crest; critics have complained of his faults of composition, contending that his work is neither three-dimensional nor two-dimensional throughout, but mixed, and not always successfully; that he relied on subject matter - as a source of emotion, exploiting its exotic quality; that his painting is "flat" and "posterish," and so on. But I feel that no other has so successfully conveyed in color and form the feeling of the islands: not only the surface aspect of tropical lushness, but the mystery beneath, the legendary atmosphere in which the tupapau - the spirits of the dead-walk in the shadows of the forest and monstrous grinning carved gods, like "The Sea Wreathed in Clouds," look down upon the islanders at play.

Above the stream at Punaruu stands what is left of one of the forts where the French withstood the Tahitian warriors in the turbulent times before the protectorate was confirmed, and in the mountains above the road gape the mouths of the burial caves that received the native dead.

The road worsens in these rural districts, although here in Paea and Papara and Punaruu are the homes of several of the more wealthy and permanent foreign residents: rambling houses, some of them roofed with thatch, almost hidden in riotous tropical gardens-spots, one would think, where one might be content to take one's ease and let the world go by on its sorry, tangled way.

The bus rattles past arbors of glossy-leaved vanilla vines and curves out along a coastal slope between the sea and the cliff that encloses the fabulous water-grotto of Maraa. An underground stream flows out of the mountains to fill a cavern with cold, clear, fresh water, brilliantly blue. The mouth of the cave is curtained with hanging vines: blue native morning glories, air plants, mosses, maidenhair fern. Within, the cavern opens into a vast domed space, dripping incessantly into a deep blue pool that in native tradition is an entrance to paradise.

I was reminded of that other cavern pool in the mountainous headland Ka Lae o ka Oio, on Oahu. If one has the courage to dive there, inhabitants of that haunted land assert, he will emerge in a hidden treasure chamber, piled with gorgeous feather cloaks, mats, and tapas of the ancient time. But in Tahiti the legend is more elaborate. Dive into the pool of Maraa, it is said, and swim under water mountainward, and you will enter a secret valley, blessed with all the fruits of Polynesia, a valley where no one ever grows old or ill - a land of the gods, like the hidden floating island of the Hawaiians where flow the living waters of Kane and Kanaloa: "those who are dead and their bodies ashes, by that water regain life."

"Do you believe this?" I asked Tu the son of Rai.

"It must be true," he replied. "For no one who has dived to that hidden valley has become discontented and returned."

Swinging around the west coast, the road proceeds along the wild, wet, and fertile south shore. Through the village of Papara, with its bamboo community house gleaming yellow in the sunlight, and its memories of the Tahitian kings and the conventions of that ancient caste of professional merrymakers, the Arioi. They were the players and mummers of their time, disseminators of news as they wandered from district to district enacting dramas of island history, and slaying their children at birth, so as not to be encumbered in their profession.

For the ancient native life was not all beauty and ease: it had its cruelties of custom and of warfare, its oppressions at the hands of rapacious chiefs, its sanguinar rites of human sacrifice. Man is so constituted that he must always torture himself in one way or another - "primitive' man, by fear of gods and spirits; "civilized" man by racial hatreds and economic oppression, by manias of speed and efficiency and social or business ambition and a crowded, fevered life. Our species seems never content to live altogether simply and without envy or fear.

Here at Papara and farther on, at Mahaiatea, remain the stones on which human blood was spilt to appease the gods. The marae of Mahaiatea, the Far Wandering, was the largest in Tahiti - built by Purea, the chiefess who befriended the explorers Wallis and Cook. It is now only a pile of rocks, in which its original form is barely discernible. At the end of a paved court, as Cook described it, rose an oblong step-pyramid in ten or eleven terraces to a height of about fifty feet. Trees surrounded it and grew up between the flagstones of the enclosure. Awesome were the ceremonies that took place there. "When the great marae was built at Mahaiatea," Hiro-i-te-maro-ura told me, "twelve hundred warriors laid down their spears and were buried alive under the stones, that their spirits might guard the sacred place."

With all due allowance for Biro's exaggeration, there still remains no doubt that the corner stone, at least, was consecrated with blood, as the surviving lines of the dedicatory chant attest:

Teie te taata ei tapu haamoa na matou....

> "Here is the man as a mark of consecration from us before thy face, O God; here is the sacred corner stone of the house we shall build for thee and for the host of gods who will come here as thy guests."

And on momentous civic or ritual occasions, victims were sacrificed on the stone altar before the terraces.

The altars and the leaning-stones of the chiefs are down; the royal burial vaults are broken; the carved gods burned or carried away to museums. Many of the sacred stones themselves were wrenched from their settings to build a bridge - and the floods tore the bridge away.

"Obariea," as Cook called her, was high chiefess of this district when Captain Wallis, with Cook as his lieutenant, arrived at Tahiti in the ship *Dolphin* in 1767, and she was the first of the nobility to give them a friendly welcome. She had the sick men of the expedition treated in her guest house and formally received Wallis with a speech which he interpreted as a cession to him not only of her own district, but of the entire island. Purea's attentions to Wallis and afterward to Cook on his second visit appear to have surpassed what is commonly regarded in European countries as mere courtesy, and her observance of traditional Polynesian hospitality has been interpreted in history as a tender passion for the English explorers. The aura of romance, however, is somewhat clouded by Cook's description in his journal:

> "Obariea must be about forty years of age and like most women here, very masculine. Oamo [her husband] and Obariea do not at this time live together, he not being able to endure with her troublous disposition."

Between Cook's first and second visits, the power Amo and Purea was broken by an invasion from the northern districts of Pare and Haapape, and Purea moved to Matavai Bay, on the other side of the island, where Cook landed. It was in the course of these disturbances that Tu chief of Pare, rose to the ascendancy which enabled him to become king of all Tahiti under the name Pomare the First. By the time Cook returned on his third and last voyage in the Pacific, Purea had died in relative obscurity and Tu had acquired most of her possessions.

Not far from the ruins of Mahaiatea, the blue-green blades of sugar cane - a familiar sight to us voyagers from Hawaii - rippled along a mile or more of coastal land running up into the mouth of a valley, where stood the mill in which the cane was ground. Chinese men and a few Tahitian women were working in the fields. This, we were told, was the only sugar plantation in Tahiti, and it had started as a cotton plantation. At the time of the Civil War in the United States, one Stewart, a Briton, took advantage of the scarcity and consequent high price of cotton to grow that crop here at Atimaono. Natives of the Gilbert Islands were brought in to do the work, and later Chinese - the first Chinese in Tahiti. Here he lived like a baron in his mansion on the hill where the mango trees wave over the disordered foundations.

Stewart made a fortune, it is said. After the war, however, cotton was no longer so profitable, and the land was planted to sugar. Here again

history intervened. When the Panama Canal was opened, cheaply produced sugar from the French West Indies competed with the local product, and the plantation declined. At the time of our visit, a syndicate of Chinese and Europeans had taken over and was increasing the production which, however, amounted to only about five hundred tons of sugar a year. Most of the work - planting, hoeing, irrigating, stripping the leaves, cutting and so on - was done by hand, but the mill was powered partly by water and partly by steam. The fields themselves furnished the fuel. The cane stalks, after the molasses was squeezed out of them, were dried d thrown into the furnace under the boiler. Most of sugar produced was used in the islands, and I think some of the rum we bought in Papeete, for the preparation of Tahitian rum punches, came from Aumaono.

At Mataiea, along this coast, sojourned Rupert Brooke, and there he wrote some of his most haunting poems. Brooke loved Tahiti, and the natives loved him, whom they called Pupure, the Blond. "Tiare Tahiti" was dated as written in Papeete in February, 1914, but in January he had been at Mataiea, and certain lines of the poem are eloquent of the atmosphere of that spot.

Something of that life may be recaptured in the neighboring district of Papeari -

> O water of enchantment,
> many the trails in that land!

There were one or two lackadaisical hotels on the Papeari shore, and native houses that welcomed visitors who were not too exacting about accommodations. There one could swim and fish in the lagoon, go torch-fishing with the natives on the reef, and, if sufficiently energetic, accompany them into the jungled mountains in search of wild oranges and fei, or just let the days wind themselves lazily about the golden spool of time.

One of our number spent several such delicious weeks at Mauu's, on the lagoon that divides the Great from the Little Tahiti. Behind the warm, quiet lagoon and the narrow strip of alluvial plain rise the precipitous mountains, dripping with moisture, and covered with vegetation. And among the coconut palms near the shore stands the thatched house of Mauu, prince of hosts.

"I don't send nobody away," he told a visitor. "Not even dog or cat. Maybe he starve while I have food. I think that wrong."

Indeed, cats, dogs, fowl, and pigs wandered at will through Mauu's house and grounds, stepping over or around the mats on which reposed Mauu's numerous relatives and friends and the castaways whom he had taken in. American and European guests dwelt in half a dozen detached

thatched houses along the lagoon. Mauu prepared or oversaw the preparation of food, in delicious native style, and arranged fishing trips by canoe and horseback rides on mountain trails. Somehow, roast pork never tastes so good as when Mauu bakes it, slowly, for hours, on hot stones underground.

In Papeari, too, on a promontory overlooking the bay, overgrown with trees and shrubs, stands what is left of the house where Robert Keable wrote "Numerous Treasure." It was comfortably built and luxuriously furnished, in Keable's time; the gardens then were trimmed and cultivated; there was water in the pool where the marble nymph crouched beneath the honeysuckle vines that clambered over the trellis. The place has been haunted since his death, the natives say. Ina, the lovely heroine of his book, abandoned the house and went to Paris after Keable died, and the home and its surroundings fell rapidly into tropical decay.

The road splits at the isthmus of Taravao, one branch running part way down each side of Little Tahiti and another crossing the isthmus to return to Papeete. In Tautira, the district at the northeast corner of Tahiti-iti, and in Teahupoo, on the reef-fringed southern shore, Tahitian life flourishes perhaps as nearly unspoiled as anywhere on the island. White intruders, with some notable temporary exceptions, have avoided this part of the island, where the dampness encourages the mosquitoes that transmit elephantiasis. The natives remain - some of them suffering the disfigurement of that grotesque ailment, but living close to sea and land, subsisting on the fruits of them, with small thought for the hurried, harried world outside.

Here they still hew their canoes from logs of the bread fruit tree; here they gather great hauls of fish by the *hukilau* method familiar to us in our own islands: dragging across the lagoon a net fringed with coconut leaves strung on strips of purau bark. The shadows of the leaves make dark, if insubstantial, bars in the water, the fish will not pass them, but huddle together and are drawn into the shallows to be scooped up by hand or pierced with spears.

Tautira was the temporary refuge of some of the *Bounty* mutineers who did not go with Fletcher Christian to Pitcairn. Here they built a boat, but they tarried too long and failed to escape in it before the avenging Captain Edwards arrived from England.

Near Tautira, too, Robert Louis Stevenson lived for a time in an oval Samoan-style house, before he returned to Vailima in Samoa to die. The site is a beautiful spot where the Vaitipiha River runs parallel to the sea, separated from it by a bar of gleaming sand. Above, the mountains thrust into the polished sky, and a fresh breeze blows in from the Pacific. A beautiful spot, but unhealthful - again, those mosquitoes. Herman Melville

reported that these pests had not always infested the islands. He said that a whaling captain from Nantucket introduced mosquitoes on the neighboring island of Moorea in revenge after a quarrel with the natives, and they spread rapidly among the islands.

The name of Teahupoo commemorates one of the harsher incidents of pre-European times. It means the heap (or monument) of heads. As the natives tell the story, the chiefs of the northern districts of this part of the island and those of the southern districts disputed the boundaries of the tribal lands. A battle was fought, and the southerners won. And they piled up the heads of their slain enemies to serve as a boundary mark. The skulls are gone now. But the village that stands there keeps the name of Teahupoo.

Tautira is an almost all-native village, compact and tidy, its streets lined with breadfruit trees and its houses surrounded by hedges of a yellow-foliaged shrub. Its people fish with nets and lines and traps and grow a little produce in the fertile soil. Yet even here, as nearly everywhere in the islands, there is a Chinese bakery and store.

Beyond Tautira the road fails, unable to assault the ramparts of precipitous cliffs, like those of the Pali coast of Kauai, that rise sheer and furrowed from the sea. The few natives who live beyond Tautira clamber over a rude trail, in some places dipping down into ravines, in others skirting the tops of the cliffs, and in still others traversing shallow stretches of sea.

The road back toward Papeete clings to the sides of steep ridges, coils and twists around abrupt headlands, and follows narrow ledges between sheer cliff-walls and the sea. From one hillside may be glimpsed the cascades of the Faatautia River, one of which plunges through an almost vertical tunnel of rock to a deep pool, hidden from the sun. This district of Hitiaa is a land of old battles; high in the valleys the bones of ancient warriors lie in virtually inaccessible caves. In one such cavern, the natives say, rests the skeleton of a giant, and the frontal bone still bears the traces of tattooing.

The village of Hitiaa dreams on the shore, in the memory of its legended past. The warriors of Hitiaa, the tale tells, captured a princess of Paea and her retinue and held them captive in a great hall of bamboo. The chief, to celebrate his victory, gave a feast, at which so much of the narcotic beverage 'ava was consumed that he and all his men sprawled in a stupor on the mats. Then the princess, like the Hamlet of one of Shakespeare's sources, set fire to the hall and she and her captors died together in the flames. Their spirits, says the never-failing Tahitian imagination, reassemble on the third night of the full moon and rekindle the torches of the feast.

The road dips into stream after stream; passes through Mahena, where a native village was built for a moon picture; and through Papenoo, a real native village of bamboo staves and pandanus thatch, with the cooking sheds adjacent, and the interiors bare of furniture but snugly carpeted with mats. Steep black cliffs guard the shore between Papenoo and Orofara, and the beaches are of that same sullen black, but the sand is soft and fine.

Orofara itself is a reminder of another of the blights that corrode tropical life. For it is the abode of lepers. A white picket fence encloses a settlement of neat little houses over which their own chief presides. About a hundred were living there at the time of our visit. The had their own motion picture theater, and an annual feast given by the people of Papeete, and they seemed happy despite the devastations of the disease and the pain of treatment by a remedial oil for which great hopes had been entertained. Rumor had it: that they were not very strictly confined, but occasionally climbed over the fence and went to town. One was as likely as not, it was said, to find an Orofara inmate, in one of the less advanced stages of the malady, sitting next to one in the theater at Papeete. Leprosy continues to be not fully understood, but despite the horror with which it is regarded, medical men tell me it is not very readily contracted. It is supposed to have entered Polynesia with the Chinese and made great inroads among the natives because of their gregarious habits. Years of eating with the fingers out of a common dish, together with the lack of resistance of the Polynesians, who had not been accustomed to the ills of other peoples and thus had not acquired immunity, are said to account for its spread among them.

Beyond Orofara are the broad-verandaed country houses of Papeete residents; sugar and vanilla plantations; coffee and banana groves; fields of small, tough, but sweet pineapples. Near the road stand the Moana and the Lafayette, famous roadhouses, and Matavai Bay glistens in the sun a gleaming new moon of water where Wallis anchored, and after him Bougainville and Cook, Bligh of the *Bounty*, and Christian, and Edwards of the *Pandora*. At: the tip of the high point east of the bay, Cook observed the transit of Venus for the Royal Society for whom he named the islands. A monument, half hidden in a thicket of pandanus, oleander, and purau, marks the supposed site, and some distance away stands a tamarind tree said to have been planted by Cook himself.

Past the firm black sands of Arue, where Pomare I lived, and past the pyramidal coral tomb of the last king, the road winds between palm groves to Papeete.

16

Roof of the Land

THE deep, green valleys end; the ridges climb on. And above them, still green-and wet and treacherous, towers the great stone roof of Tahiti, the mountain Orofena.

There was no record that any one had ever stood on that massive summit. But that alone wasn't why we wanted to climb it. The incentive was, rather, that no one knew just what plants and insects and land mollusks flourished on its upper slopes.

So a selected party set forth. Four native trail-cutters went first. For four days they slashed through the jungle, then sent back word that the party might follow. With eight native guides and packers and James Norman Hall, our men began the march. There followed twelve days of torment and toil - twelve days when no one was ever warm or dry or comforted with hot food.

The great mountain was like a sponge, oozing water continually. The sky oozed above it, and the air under the matted foliage was saturated ·with moisture. Explorers and bearers slipped and stumbled over muddy trails, and labored with bush-knife and ax where no trails were. Torrents foamed across the path, jagged with slippery rocks. Fallen trees lay heaped in confusion; vines interlaced and formed hidden nooses, binding, choking, tripping. Soggy wood defied attempts to kindle fire.

Wet and cold and scratched by underbrush, legs and arms broke out in sores and boils. Stomachs rebelled against a diet of cold canned corned beef and unripe mountain bananas. When the fifth camp was made, at an altitude of 4,500 feet, Fosberg, the assistant botanist, lay helpless, too ill to go farther.

Hall and St. John pressed on, up the slippery, jungled peak. It was steeper up there, the ground was loose and full of pebbles, offering no secure footing. Once they gave it up and returned to camp. Then they started upward again. The guides deserted: the going was too hard, and they remembered that they were in the region inhabited by the gods, where it is not safe for mortals to tread. On their second attempt, with the

ground continually giving way under their feet, the two remaining explorers struggled to a height of 6,600 feet, a thousand feet higher than any one was known to have climbed on that mountain before. They would have liked to go on, to learn whether the native tale of a lake between the two topmost crags of Orofena is true. In the ancient time, it is said, professional climbers used to scale the mountain, supporting themselves on two staves, one in each hand, and digging in with them as they climbed. They went there, natives say, to obtain the feathers of a red duck that inhabited the lake, for the headdresses of chiefs. But it seemed impracticable for our venturers to reach the summit. Hall said this was the third time he had tried to scale Orofena, and he would not try it again. St. John reported to the museum that they turned back "because of serious danger to life."

But the party returned loaded down with specimens, including, as the report stated with professional caution, "many of real scientific interest."

Meanwhile another group of our number, in somewhat similar conditions, climbed in five days to a height of 6,000 feet on Mount Aorai, and brought back strange and precious things: "new species from an elevation higher than has been reported for any insects and land shells from Tahiti." I remember particularly a huge land shell, flat-coiled and almost the size of a half dollar, and some insects which the entomologist admitted to be "surprising finds."

If the Orofena climbers were handicapped by a surplus of water, the Aorai party was embarrassed by the lack of it. The trail was wet underfoot, but the ridge that leads to Aorai is very steep, and water does not collect at the higher elevations. The supply in the canteens and in the containers carried by the four native packers gave out. One had to be resourceful, then, and watchful to gather the rain water that lay on the leaves of plants or to suck it from the drenched sleeves of one's shirt.

The haunted lake of Vaihiria lies deep in the mountains, a green jewel in a titanic setting. Dark and still it rests in its lofty cup, and the tall ferns on its steep banks are reflected in its face.

That trail, too, is long and hard, up and down steep and slippery slopes, through tangled thickets and wild streams; one loses count of the fordings and accepts the tradition that numbers them at eighty-seven.

Through spongy pasture land and meadow the path leads inland from the mango-lined driveway of an old plantation near Mataiea. Flamboyant tropical flowers hang from bush and tree; bamboos lift their delicate angular tracery of foliage; lemon-yellow guavas glow beside the way, and tart green-and-yellow oranges gleam high in the branches of trees that are two and three times as tall as those of the cultivated citrus groves at home.

The first time I gathered one of those wild Tahitian oranges, I bit through the rind to suck the juice, as one may do with an orange of California. This was an error I was not to repeat. Choking and burning from the acrid, pungent oil, I dashed into a stream to quench the intolerable fire of that uncautious mouthful. Thereafter I adhered to the Tahitian custom of peeling the fruit spirally, leaving only enough of the yellowish-white, pulpy inner skin hold the juicy interior intact.

We were told that oranges had been introduced into the islands many years ago by missionaries and had gone wild, being found growing even high in the mountains. The fruit was more juicy and less sweet than the domestic oranges grown in California and Florida, resembling more nearly the Kona oranges of the Island of Hawaii. It amused us to learn that there had been a citrus "industry" in Tahiti before there was one in California; in those days, Tahitian oranges, wrapped in pandanus leaves and packed in crates of purau poles, were exported in sailing ships to San Francisco.

The hike to Vaihiria is not as difficult or as hazardous as the ascent of Orofena or of Aorai. It has been, indeed, an excursion for tourists, properly assisted by guides. But it is no lazy stroll. Feet slip on mossy boulders and trip among the vines and roots that snare the ankles; some of the fords are deep, and one arrives at the steep upper stretches drenched with both perspiration and mountain water. One is likely, too, to nurse numerous scratches and bruises, to say nothing of turned ankles and perhaps a sprain.

The trail climbs the side of a cañon, a treacherous slope of rocks, porous with pitfalls and slippery with long grass; then burrows through a scratching thicket of guava bushes and at last looks out down a crater-like slope, overgrown with deep grass, to the lake and the thirty-odd +waterfalls that wrinkle the surface at its rim. Walled in with sharp green mountains, Vaihiria guards its ancient legend, and the world seems very far away.

In former times, a cave was the only shelter for travelers at Vaihiria. More recently, a rest house of bamboo, roofed with corrugated iron, has been erected, but it is usually in need of repair. Rain sifts through the ill-fitting roofing and the woven sides, and wind brings the chill of the mountain into the hut until the dripping, shivering excursionists are glad to huddle around such a fire as can be made, with care and skill, from damp wood.

A single bed, suggesting a Hawaiian hikie, extends the entire length of the house. It is made of wire screen laid across poles, with dried fern leaves for a mattress. It sags, and the rain drips in upon it unless the natives have done a thorough job of patching the roof and walls with temporary thatch, but it will accommodate fifteen or more guests. For one

normally spends the night at Vaihiria; the trail is too long to return the same day.

One may swim in the cold water, paddle about on a bamboo raft, fish, pursue the "eels with ears" that inhabit the lake, or hunt wild pigs in the forest, or just lounge on the couch while a group sings Tahitian melodies or some one starts a spirited native dance,- or, if lucky, one may hear the legend of Vaihiria and how the coconut came to Tahiti.

"Hina, daughter of the chief of Papeuriri, was very beautiful," said Tu the son of Rai. "She was a tabu chiefess; light flashed from her body, and she could marry only the highest in rank. So the sun and moon betrothed her to the chief of Vaihiria, whom she had never seen.

"Dressed in white tapa, with wreaths of red pandanus and white gardenia and a neckband and girdle of red and yellow feathers, the princess set out for the lake. The drums beat and the bamboo flute played as her party climbed the trail.

"But as they came within sight of the lake, they saw a tremendous eel gliding to meet them. He was as long and thick as a coconut tree, and he was the bridegroom, the chief of Vaihiria. The bride fled in horror and embarked by night for Vairao in Taiarapu to seek the aid of Maui, the wonderworker, who dwelt there in a cave.

"As Hina told him her story and besought his aid, they saw the eel, in swift pursuit, breaking through the reef beyond the shore. Maui set his stone gods on the cliff and sharpened his stone ax and bound bait to his fishhook with strands of Hina's hair.

"The eel swallowed the bait, and Maui drew him ashore and cut off his head. He wrapped the head in tapa and gave it to Hina, saying: 'Take this, and do not set it down until you reach your home, for within the eel's head are treasures: food and drink and materials for your house.'

"On the way home, Hina and her attendant stopped to drink from a stream and, forgetting Maui's instructions, set the bundle down. When they turned to pick it up, the eel's head was gone, and there stood a tree - the first coconut tree in Tahiti.

"Hina wept, because her treasure was rooted in another's land. But Ruroa, the woman who lived at that place, said to her: 'Stay here with me and watch your coconut tree grow, for it shall remain yours.'

"So Hina remained with Ruroa. Now Ruroa was a woman of the common people, but of good repute through out that country, and she had two sons who were tall and strong and famous fishermen. Beholding the tree, they piled coconuts and brought them to Hina. And Hina, looking upon their manly beauty, ennobled them, giving them princely names: Sun Flashing at Morning and Moon Rising at Evening.

"Hina married Sun Flashing at Morning, and their daughter was named

Sweetheart of the Moon. After a time, Sun Flashing at Morning died, and Hina married his younger brother, and their daughter was called Sweetheart Beloved.

"One day the two daughters were standing beside the tree, each holding a ripe coconut in her hand. The gods took them up on the rainbow and led them to the island of Anaa, in the Tuamotu. When they arrived there, Sweetheart Beloved tested her coconut and found there was no water in it. So, when her sister was not looking, she exchanged the two, taking her sister's coconut. The gods were displeased at this, and caught her up to the clouds. As she was carried away, the coconut fell from her hands and sprouted, and from this tree grew all the coconuts in the Tuamotu.

"The original tree stood at Anaa until the great hurricane, when it was broken in pieces and carried away by the sea.

"Hina and Moon Rising at Evening lived long and happily and had many children, and their descendants live in Papeuriri and Taiarapu to this day."

I think it was Tu who caught the eel with ears. There they were, erect projections in the place where ears ought to be. But I doubt that the eel could hear with them. More likely they were modified fins, perhaps serving some such purpose as a cat's whiskers when the eel darted in and out among the rocks.

But Vaihiria is an eerie enough place, and it is no wonder that the natives, as they huddle about the fire while the wind whistles through the bamboo slats and the rain trickles down, hear the cries of *tupapau*, the ghosts that haunt the lake.

17

Path of Fire

THE FIRE had been blazing all day around the boulders in the trench behind the high board fence, until they glowed like chunks of anthracite in an old-fashioned stove. Toward evening, men in firmly girded red loincloths raked away the still-burning logs and with long poles turned the heated stones over upon the bed of coals. The crowd fell silent as the moment approached when man, fortified by prayer and fasting, should test his physical endurance, his courage, and his spiritual power against the gods of fire.

The ancient fire ceremony of Raiatea is best witnessed in its own home, though even there it has lost much of its original significance and has begun to degenerate, as in Tahiti, into a spectacle. Nevertheless, when seen at night and in appropriate surroundings, it can be very impressive.

The chosen of the gods assembled in line behind their leader as he stood at the brink of the pit of fire. All wore skirts of split green ti leaves; they were festooned with green wreaths, and their brows were garlanded with green. Each carried a fresh branch of ti. The leader held one branch in each hand.

The leader intoned a chant, then stooped and struck the rocks with his wands of leaves and set his bare foot on the first stone. Gravely, with measured pace, yet without lingering, he stepped from boulder to boulder, while the glow from beneath and between them cast a red light on his face and form and the ti leaves shriveled in the heat as he passed them over the interstices between the rocks.

Across and back he strode, and across again. This time the others followed, matching step with step, as calm and grave as he, the length of the pit and back, treading down the fire demons with the power of faith. And I think that for the moment, the past returned and lived, and they believed in what they were doing, even though the once sacred rite is now performed for show at a stated price of admission.

The fire ceremony of Raiatea isn't what it once was in these modern days when some visitor with venturesome and inquiring mind may

embarrass the native participants by taking off his shoes and stepping out across the stones to find out whether a white man's tender feet can bear the ordeal. This has been done more than once. Sometimes the experiment has been successful, and sometimes the amateur has been badly burned. The natives say it's a matter of faith, or that the stones have been cooled for the faithful by the leader's magic. But such ventures undoubtedly have contributed to the decline of the ancient mystery. The facts probably are that the stones are not as hot as the openings between them and also perhaps not as hot as they look, though if you toss a bit of paper upon them it will burst into flame; that the natives' feet are tough, and possibly that almost any one may be able to walk the fire-path in comparative safety if he steps quickly but deliberately, firmly and surely, with steady pace and with confidence, never losing composure.

But when the firelit stones glow with an unearthly shimmer and the flames lick up between them, one can forget or ignore the foreign intrusions and the sad state to which the ancient mystery has fallen. For a moment one is back in the atmosphere of the chants that were composed when the fiery march was a living, functioning thing, of deep spiritual meaning in the brown men's world. So nearly obliterated are the more solemn of the old-time traditions that the precise significance of this ceremony has been largely lost, save that it is obviously a demonstration of mana - spiritual strength, the power within that comes by inheritance from the gods and is enhanced by communion with them.

Beyond that, it is doubtful whether any one now knows the exact meaning of the rite. But from surviving chants, comments of thoughtful natives, and comparison with other features of Polynesian life, I have ventured to draft a chant in our own tongue which seems to me to embody some thing of the essence and feeling of the fire ritual:

FIRE-WALKERS' PRAYER*

From the bright mountain the sacred garlands are gathered:
the green, the yellow, the striped leaves of the woodland;
the oven is dug in the earth, the stones of the mountain
heated to glowing.

Holding the sacred leaf-wand, we pray, O Hina,
Great Gray Woman of Scented Herbs, our Mother;
and thou, O Nameless, Leaf-Clad Woman who kindled
the sky to burning!

Lead us, O feet, through the steam of the oven with courage!
Fresh water, walk at our right hand; salt, at our left:
earthworm of darkness, earthworm of light, our brothers,
going before us.

Hear now, spirits whose breath enchanteth the oven!
Dark worm of the earth, and the cool-skinned bright one!
Ancestor woman who fanned the heavens to flaming,
hold up our footsteps!

Heat of the oven, darkening of the oven
are thine, O Hina; thine, O Firebrand of Heaven.
Watch over us, ye four hundred gods of the forest,
cooling our footfalls!

Only the clean of heart may walk here, O Hina!
Cast out from among us the coward, the deceiver,
the cruel one, the man of two mouths, the mocker
having no part here.

Hold now the fan, O Woman Who Kindled the Heavens!
Hold now the fresh wand of leaves, Moon-Mother!
Boldly we step forth, setting our tread to the furnace -
cool to our footsoles.

Dark one, bright one, walk with us out of the oven.
Cold host of the gods, guard now our passing!
Sky-burner, Gray One scented sweetly with herb-things,
join with our chanting!

E! we come through.

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18

Voice From the Darkness

IT WAS our last evening in Tahiti. The light wine was plentiful in the battered metal-enamel cups from the galley, and music drifted from the deck to the indifferently watching stars. A guitar throbbed under deft brown fingers and song poured from relaxed brown throats-the songs of Tahiti, farewell songs about people going away on ships and their bodies being "lost" - as the native idiom expresses such departure'swallowed in the night-blue sea." For there are two kinds of journeying: of the body, and of the spirit. When one dreams, his soul goes voyaging, while his body lies on the mat. And one's associates must be careful not to awaken one suddenly, lest his spirit be unable to find its way back. But when one boards a ship, physically, it is his body that goes on the sea-road "beneath the burning day," and it is his friends who remain to think of him so far away. Half the songs of Tahiti, I think, must be like that, and we were like that, making friends in port after port and always sailing away.

Erena, the Tuamotuan girl, sat a little apart from the rest. Her stiff, coal-black hair merged with the darkness, but her emaciated features stood out in the pale starlight. As the song died away, her voice flowed on, low-pitched and husky, not in the frayed syllables of Tahitian, but in the harsher, stronger tongue of her native land.

No island romance was involved in this acquaintance. Erena, if she had ever been beautiful, was so no longer, and her life was trickling away. She was a frail Tuamotuan girl, far from home, who had not long to sing beneath the stars. She liked to talk with me, because I spoke, however lamely, the language of her people, and knew their hard, simple, contented life. Erena was dying of tuberculosis, and I think she felt the hollowness beneath the bright surface of the life of the port and was homesick for the rusty red roofs of Fakarava, which she would not see again.

I had told her, in the *k*-and-*ng*-roughened Tuamotuan speech, of my own life in the Land of the Puka Trees: the good friends there, my adoption into the family of Tehau the son of Vehe; and I had intoned for her a little of the name-chant of my adoptive ancestor and namesake,

Mokio Ariki, which had become, by island ceremony, mine. I had repeated only a fragment of it, of course, for these chants are family property, not to be imparted to outsiders. I had told her, too, of my illness at Tepuka, when the medicine man said I had walked too near a grave and an evil spirit had entered my left little finger and was gnawing toward my heart. And how Toriu, the *tahunga*, watching over me by night and day, had saved me with herbs and incantations and the secret medicine that cooled and puckered the skin when it coagulated there like dried blood.

Erena leaned forward above me from the low bulwark that enclosed the up-tilting forward deck. She spoke slowly and gravely, and it is no longer clear to me whether I actually heard those words or dreamed them, or read her unspoken thoughts. But it seems to me now that I hear her low voice saying:

"Pari Mokio-Ariki, when you were received into the family of Tehau, the spirits of the ancestors became your guardians. And when Torin, with the white feather in his hand, spread the red medicine upon your wound, the blood of the land entered into your blood and the ancestral spirits of Tepuka came, in answer to his chant, to fight for your life against the demons of the Great Darkness.

"You will go away to your own land in the white man's country, but the blood of the land of the *maohi* will remain in your blood, and the ancestral spirits will go with you. The spirit of Mokio-Ariki will walk at your right hand, and the Lizard Woman at your left; Punua and Tohitika will go before you and behind, to guard you from harm."

We sailed away, and for the time being I forgot her words. Within a few weeks, Wili, the Rapa boy, brought us word, at Borabora, of her death. I am not credulous of spirits or of spells, and it seems doubtful that the ancestral ghosts of Tepuka could find their way about in this alien land. Even though Mokio-Ariki is alleged to have invaded, in his living body, the spirit-world of the dead and returned safely, he might have more difficulty in a non-Polynesian country. But three times since then the Lizard Woman has darted into my dreams, wearing the transmuted semblance of Erena's ravaged features and muttering in an archaic, elder tongue. And each time, soon afterward some crisis in my life has been met and, in some fashion, has been endured or overcome.

19

Many-Spired Moorea

MOST of the good-bys had been said the evening before, but many of them were said over again in the cool early Tahitian morning. Taui and Tetua brought farewell gifts of oranges and mangoes and starry-petaled wreaths of *tiare* to their briefly cherished dear ones among our crew. The little group stood with us on the forward deck and sang with us:

"Teie te ara ta'u tino? "

"This is the road my body goes,
lost in the sea's foam."

Porina, fragrant with jasmine, stroked a warm rich chord from her guitar and sang, for the last time in our hearing, the "Song of the Jasmine Flower":

"Your ship departs
and I shall hear your voice no more.
Alas! these tears -
the dream within my heart ... "

There were tears in the doomed Erena's eyes as she pressed my hand in both her lean, brown, friendly ones - Erena, whom the dark canoe already awaited for the last lone voyage to the ancestral *Po*, Erena for whom no other ship would come.

"May you have life in the gods!"

"Well, we're all here," boomed the hearty voice of Captain Bill. Alec and Enoka cast off the lines; Yoshio started the engine, and we chugged briskly out of the harbor. Our friends walked slowly down the wharf; soon they were a mere spot of color in the receding distance.

Surprisingly soon we were gliding past the precipitous green-hung mountains of Moorea and into a long, deep bay - a drowned valley in the shadow of tall ranges. A comfortable-looking modern bungalow stood at

the head of the bay, in a wilderness of tropical forest, with the green mountains rearing behind it. It was the home of an American couple who lived here in the peace of the genuine South Sea island scene, just far enough from Papeete.

We hunted land shells in the damp and wooded valley of Urufara, turning over dead leaves to pick up little round zonitids and transfer them to tiny bottles, or plucking big striped partulae from the living trees. Rain dripped from the somber mape trees as we crouched between their buttresses for shelter, and mosquitoes buzzed about us and stung our necks and ankles despite frequent applications of citronella.

"Tera te pape" ("there is the bathing place"), directed a brown-skinned, red-clad girl who was fishing from a bridge over a stream. Following a muddy path through a pasture to a swift little brook, brown with mud, we bathed in its surging water, and walked back through the rain to a supper of canned corned beef, onions, and Tahitian sweet potatoes aboard ship.

So began a period of nearly a month of this life: tramping all day through wet valleys darkened by trees, or climbing high, windy ridges, slippery with sunburnt grass; cutting our way through tangles of ieie vine which, when cut, left sharp stubs on which to fall as we stumbled back down from the mist-wreathed heights; or trampling paths through dense staghorn fern which rose up again to block our way as we returned; crashing through head-high aeho grass with tough, bamboo-like stems and edged leaves that cut our hands as we grasped them to haul ourselves forward; and creeping through thorny pandanus thickets. The worst obstacle was the lantana that grew in impenetrable masses on nearly every unforested ridge: dense and prickly, and infested with vicious wasps. We dreaded the sight of its multi-colored flowers and the aromatic odor of its curly leaves.

Yet the Polynesian forests have some advantages over many of those of America. We didn't have to watch our steps to avoid poisonous snakes; there were no snakes. We could plunge bare arms into masses of foliage without worrying about poison oak or poison ivy. "Chiggers" didn't burrow into our skins, or leeches fasten upon them, as in some tropical countries. The plants commonly found in the islands we visited were not poisonous to the touch, and the insects, with the exception of the female of a striped legged, night-flying variety of mosquito which carries elephantiasis, were harmless. I don't even remember that ants bit us very often. We could lie down and go to sleep almost anywhere, if we wanted to, in reasonable safety. Nature in the South Seas is relatively kind.

It was a good life we were living: bathing in cold mountain streams, enjoying natural shower baths under; cataracts; washing our clothes,

native fashion, on smooth stones in those streams; drinking from huge vines that hung from the trees and from which, when they were cut, trickled a cool, watery juice. Or, on valley trails, Zimmy, agile as a native - or one of the insects he pursued - would walk up tall coconut palms and bring down great juicy drinking nuts. Wild oranges, pungent and aromatic as no cultivated orange can be, lay on the ground or tumbled down as we climbed and shook the huge trees.

And then there were the evenings when, tired but luxuriating in a glow of health, we looked out over a beautiful bay with a sunset gilding the mouth of it and great mountains towering all around. Night deepens, a canoe glides past; lights come out in the thatched houses; mist creeps down the valleys. Laughter and shouting of children sound from the shore, and the tinkle of a guitar aboard. Peace, washing us clean of Papeete.

Sam was the steward. With Yoshio, or Alec, or me, he would bargain with Chinese storekeepers or native farmers for chickens, yams, bananas, the good food of the land. We hadn't lived so well in port at Papeete. With Dr. Cooke and Captain Bill living ashore and the funds running low, there had been only a scanty handful of francs with which to feed each day a dozen or more hungry seafarers and a horde of native helpers and hangers-on. We would comb. the Papeete market for the cheapest cuts of pork or beef, which Ernest would stew to the limit of tastelessness and garnish with a sorry mess of boiled rice and Chinese cabbage, and of this thin and watery meal there would be barely enough to take the edge off our hunger.

On Moorea the commissary was better provided. Sam bought a pig, and the lunches that we stuffed into land shell bags tied to our belts on those mountain excursions were rich and filling, with thick slabs of roast pork folded between lengthwise halves of Chinese-baked French bread. The pig spoiled before even this band of mighty eaters could consume it; Sam traded the remains, mostly the head, to the Chinese baker for two dozen loaves of bread. I suspect that next day the "Tinito" made sausage.

Some minds run to figures, and there is always some one who wants to know dimensions, averages, and statistics. I have been told that Moorea is an island of fifty-five square miles, some twelve miles distant from Tahiti, and that its people number about two thousand. Such is the variation in the human mind, however, that I was more interested to learn that it had formerly been called Aimeo, Eating in-Retreat, because it had been the refuge of defeated warriors from Tahiti, and that it is named in ancient chants *Aimeo-i-te-rara-varu, Aimeo* of the Eight Branches, or *Fe'e*, the Octopus, because of the eight mountain ridges that thrust seaward from the center of that rugged land.

A reef surrounds the island, pierced by an opening on either side. The little auxiliary schooners and cutters from Papeete coughed past us as we

lay at anchor in bay after mountain-shadowed bay, while they called at villages inside the reef for freight or passengers. Their decks were crowded with people, pigs, cattle, and miscellaneous parcels, all piled so closely that there was scarcely room to sit or walk.

Scenically, Moorea was the most spectacular island we had visited, with its rugged peaks and long, precipitous mountain walls, whose central mass resembled a Gothic cathedral. One peak, Mouaputa, the Pierced Mountain, has a hole through its summit, which serves as a landmark on which to take bearings at sea. Like most perforated mountains, it has a story.

"Hiro and his band of thieves tried to steal part of Moorea," related Teata, the guide whom Medford Kellum, the American rancher, had chosen to accompany him and us on a shell-gathering expedition on his land behind Paopao Bay.

Pointing to the tall mountain Rotui, for which Kellum had named his roly-poly son:

"Hiro and his warriors tied ropes of pohue vines to the mountain and started to haul it away to Raiatea.

"The paddlers in the canoes bent their backs; the land cracked and stretched; in a few more strokes they would have pulled away all the country that lies between Opunohu and Paopao.

"But at Punaauia, on Tahiti, was Pai, a great warrior from Tautira, sleeping under the waning moon. The gods who were his relatives awakened him.

" 'Take your spear, the Transplanted Hibiscus,' they said, 'and throw it to eight-branched Aimeo!'

"Then Pai got up and girded his pareu about him and climbed the hill of Tataa, whence he could see Moorea. He drew back his arm and threw the spear. Ha! It flew across the channel and right through the mountain that we now call Mouaputa, and it flew on all the way to Raiatea. The dent it made when it fell is in a hill there to this day.

"The noise of the spear rushing through the air, and the crash when it pierced the mountain, woke up all the cocks, and they crowed from the mountains and from the lowland.

" 'It is almost daylight,' said Hiro when he heard the cocks crowing, and he and his band fled. But they still held on to the pohue vines, and tore away a hill from the end of Rotui, a hill covered with aito trees. They took it to Opoa, in Raiatea, and if you go there you can see it still, the only hill in all that country that has aito trees.

"Their pulling had stretched out the land that remained, so that it extended into the sea between Paopao and Opunohu, and as you can see, it is so now.

"But they never came back for the rest of Rotui."

Moorea is a green and gracious country: fat with bananas and glossy green vanilla on the lower reaches, and with massive mape trees above, with candlenut and breadfruit and coconut mingled with false erythrina, huge ferns, and smaller vegetation. In the valleys we were continually climbing over old stone walls, some standing, some fallen apparently retaining-walls for a terraced agriculture of long ago when the country was more populous and cultivation spread inland from the more favored coastal plain, or perhaps these had been the refuges of the fugitive warriors "eating in retreat."

Once we took the speedboat over the quiet lagoon - a brilliant expanse of blue, studded with dark coral heads to a valley and ridge that we had picked out, on the voyage from Tahiti, as a promising collecting ground. The keel struck and grazed over a lump of coral, but Alec shut the motor off and raised it out of the water in time to avoid disabling it on the ragged mass. Landing on a sandy beach, we walked through a coconut grove where smiling natives opened deliciously-pungent drinking-nuts for us; thence up a long, steep ridge through dense aeho and lantana and along an old wall built in Polynesian fashion of loose stones cunningly fitted together, which made a narrow causeway up the slope. Fog rolled up from the valley toward that windy ridge as Zinuny inverted his pink umbrella under bidens bushes and shook small insects into its concave expanse, while Don and I gathered partulae, sparsely found on the guava and ohia bushes.

"Yo-hee-o-yo-ho!" came a call, shrill and thin with distance, out of the valley, which was filled with fog-like coiling smoke. "Yo-hee-o-yo-ho!" yodeled Zimmy in response to our unseen comrades in the valley, two thousand feet below.

Farther up, we plunged into denser forest, with many ferns and much tangled growth of various sorts, and then down into a wet "hanging" valley full of angiopteris ferns whose huge fronds, thick as a man's wrist at the stem, broke off short in our hands when we grasped them to halt a fall. Growing among the ferns was a species of piper, a relative of the narcotic 'ava, which we chewed experimentally without result, and many rank jungle growths which yielded fat partulae and big conical zonitids, but not the rare species which we sought.

"Dr. Crampton," our chief had told us, "got a partula in one of these valleys - a frail-shelled partula, so fragile that only one undamaged specimen exists in any collection. I'll give a reward of twenty-five francs for the first one brought in whole."

Partulae we found - big and little, fat and lean, striped and plain, and some so thin-shelled that we slipped them carefully into glass vials, not trusting the muslin bags in which we carried the coarser varieties. But Dr. Crampton told me, when I saw him later in San Francisco as he returned from an inspection of our finds in Honolulu, that our quest had been in vain. The Crampton partula still remained unique.

In that valley, however, as rain dripped upon us from the angiopteris fronds, we found what Zimmy most desired: the first Moorea rhynchogonus, which fell obligingly into Don's hat as he searched a fern frond for shells.

Returning to the ridge, we stepped around a goat-snare which some enterprising native had set across the trail, and crashed down the long slope, its wet bushes clinging around us. Then, with spray dashing in our faces over the bow of the speedboat, we dashed back to a supper of pig and bananas aboard ship and a bath in the cold little stream above the village.

It was good to be on high trails, with the mist blowing in our faces and the wind cool and sweet and our feet on the red volcanic earth.

Another day Zimmy and I climbed a burned ridge, whence peaks ascended in every direction - sheer towers of rock, forming a huge amphitheater, with a tremendous spire of mountain thrusting through it. We walked through forests of dark, buttressed mape and tall, straight bamboo, and sat a long time under a pandanus thicket, picking land shells - tiny tornatellidae and tinier pink georissa - from the dead leaves. A wild pig trotted over the scorched ground a few rods from us, with scarcely a glance in our direction.

Such was the life we lived - a life apart, following mountain trails where we seldom saw a human being. The wild snails, the indigenous insects, the native plants all shun the cultivated borders of the islands; they cling to the little-trodden high country, and there our quest lay. The people of the village with the octagonal red-roofed church held some what aloof from us, and we from them; our thoughts were on high trails and wide waters, and they were used to white men; we were no novelty to them. Yet late each afternoon, when we walked back through the village after we had bathed in the stream beyond the houses and soaped and squeezed our clothes against rocks in the running water, we paused to watch the young people playing the modem game of basketball in the schoolyard near the landing place.

Once, far up a valley, we came upon the stones of a temple in the midst of vanilla and banana plants. An old woman who tottered out of a hut to give us permission to cut drinking-nuts, shook her head as she looked at the gray stones beneath the glossy green vanilla vines.

"It is not good," she muttered. "A spirit haunts this place."

But she admitted that the spirit had been driven away by building fires on the site.

"Where did the spirit go?"

"*I te fenua Vaihi*," she replied. Did she mean the islands whence we had come - for so the Tahitians call Hawaii - or only the place called Vaihi on the island of Huahine? The rest of her talk was lost to our understanding.

And once, near the shore, as I surveyed the melancholy ruin of another sacred spot, an old man spoke of the dog spirit that came by moonlight to the beach in front of that temple-place.

"He is white, with dark spots, and sometimes his coming means good fortune, sometimes bad .... At night we hear the ghost-dog pawing in the sand."

In a decrepit truck, we circled the shore-line of the island, stopping from time to time to collect specimens. Most of the stops were unpremeditated: three times the worn tires failed, and oftener the gasp of an expiring engine, of a model long since obsolete, sent us out on the road to restore it to life by pushing. The fan-belt dropped off and was lost somewhere; the clubfooted driver walked back a little way, kicking at the sand, and turned up a bit of fishline, which must have been the missing belt. At least, when he installed it, the car moved. A thatched house stood behind a fence of palm fronds, against a background of stupendous mountains. Its kindly inhabitants gave us refreshing drinking-nuts, refusing payment even in the usually infallible currency of cigarettes. Good-hearted, simple folk: we lost the record we made of their names, promising to send them prints of the photographs we made of them, lined up stiffly in front of that scene of primitive huts and noble mountains.

On the last evening of our stay a group of us went ashore in the early evening - marine phosphorus dripping from the oars as we rowed in - and waited at the Chinese store for the *arearea* that was scheduled. An *arearea* is a party: a gathering for singing and dancing, and eating and drinking if anything to eat or drink is available. The town was very quiet; a few young men assembled and we sat in a row on a rusted gun from the wrecked French cruiser that lay like a surf-battered islet on the reef. The gallant skipper or the helmsman, the young men said, had been so interested in watching a pretty girl on shore that he hadn't looked where he was going. On the melancholy naval relic we sat and sang the songs of the young people of Moorea, which did not differ from those of Tahiti.

Tane and Ruahatu, gods of Moorea, flung scarlet and gold cloaks across the sky as we sailed from Afareaitu in the mellow late afternoon.

View from the *Islander's* anchorage at Moorea.

Deep in the interior of Moorea we came upon the stones of an ancient temple.

They gave us drinking-nuts on Moorea.

20

Friendly Isle

AFTER A night of tossing on the channel, morning brought us to the long wharf of Farenuiatea on the lagoon bordered island of Huahine -

> Huahine standing in the face of the north wind,
> Huahine in the spray of waves,
> in moonlight over broken shells

-as the chant proclaims, though of its next line:

> obstinacy is their diversion

we found no supporting evidence among the curious and friendly crowd that gathered to greet us or among the merry young people whom we met later.

Farenuiatea lay along the low shores of the harbor, under a canopy of foliage, with long ridges rising behind it into the interior. A good wharf stood in eleven feet of water toward the left of the harbor as we entered the pass. The houses were of mixed foreign and native architecture, some frame, some thatched, and a large community hall stood at some distance to the left of the landing. Around the bay were small plantations and the huts of fishermen. The atmosphere was mild, moist and pleasantly warm.

These, again, were working days for our company. Zimmny and I toiled up a long, burned ridge, where charred stalks of giant grasses, guava stumps and ferns blackened our clothes, hands, and faces as our feet crunched the fire brittle shells of perished partulae. These burned forests continued to distress the scientists, for they meant destruction, over wide areas, of the species our party had come so far to find.

The dead, black patches were numerous. We counted five in one valley on Huahine. Some of the burning must have been done to clear land, though we saw fires, and the scars of earlier burnings, on high ridges where no cultivation was likely.

"It's the childishness of the natives," snorted Sam. "They set the fires just to see them burn."

There usually is a reason, however, sound enough in native logic, for anything the Polynesians do, and I feel that had we been studying, at that time, the people, instead of the more humble fauna and flora, we should have discovered that this burning had a purpose - even if it were only a primitive way of breaking trail.

The charred area broke off abruptly into a tangle of ieie and fern that made hard going. The ieie, or freycinetia, spreads a net of tough, vine-like sterns that becomes almost impenetrable. We slashed through with coconut knives and emerged into a wild valley where, to all appearances, man might never have walked. This wilderness offered few insects for Zimmy, but many shells for me. By this time I had become more or less firmly attached to the malacological section of the expedition, since its work was relatively easy for a layman to undertake. Land shells, unlike insects, don't move about rapidly; one learns readily to recognize the various families, if not precise species and genera; and a day's collection makes only a very light burden to carry. Almost any land mollusk was acceptable to our chief; we soon learned to avoid the very few widely distributed kinds which didn't interest him. To the botanists, on the other hand, a layman was useful only as a burden bearer, since among such a bewildering variety of plants, many of them heavy and bulky, it was necessary to exercise discrimination to avoid excessive duplication. The study of land shells, too, requires a larger number of specimens, since most of them are very small and must be dissected under a microscope for precise classification.

We returned from this trip by a slippery trail through plantations of bananas and breadfruit - all unripe; orange trees bare of oranges, unripe papayas, and coconut trees too high for even Zimmy to climb.

Swift tropical darkness settled over the bay and the warm, fragrant land. A boatload of us rowed through the phosphor-gleaming water - for the ship had been anchored at some distance from the wharf to avoid mosquitoes and to discourage native visitors who might distract the scientists from their work - and landed on a slope of boulders before a house that stood near the sea. Men and women welcomed us and sat around us on the cool grass, smoking and asking questions about the expedition and its purposes, the lands we had visited, and why we went to the trouble of climbing mountains.

We bathed in the family's *fare pape* - a combined laundry and bathroom consisting of a small shack with a cement floor and a leaking faucet, on a broad lawn behind the house. Later we sat on mats in the soft darkness near the waterfront, where a group of the villagers had gathered. Most of the young people had gone to church, but two girls were sent to fetch the village guitar, which was played skilfully by one Terai (The Sky,

or Heaven), a girl from Kaukura in the Tuamotu.

The cool evening flowed softly around us; faces and forms blended with the darkness, punctuated by the glow of cigarettes and the scent of flowers in the hair or behind the ears. There was singing and low, easy laughter; a bare foot girl in a white dress danced with waves of her body like ripples on the bay. We heard the young women parceling us out among them:

"To Maui, the tall, slender man; to Firina, the short one with spectacles; to Rua, the stout, ruddy-faced one . And you, Terai, cannot have a man, for you are tabu.... "

We left early, evading these hospitable intentions, with the promise to return for a bigger and better *arearea* the next evening. I would not go so far as to assert that some members of the crew may not have slipped over the side later, to row softly to the dark shore where kindness waited in the scent of flowers .... But my own memory of that night is of a strange sight at the water's edge when Captain Bill flashed his electric torch into the clear water, lighting up a fantastic horned fish whose curiously shaped body glowed golden in the stream of light.

The next evening, after a tramp up another savage valley collecting shells, which the natives thought we wanted for hat-wreaths, there was *arearea* in the community house: a bare, shed-like structure lighted by a lantern which hung from a beam in the center, with a bench around the sides and big sacks of kapok - tree cotton - piled in a corner awaiting shipment. Many young men and a few young women sat about the dimly-lighted room. One youth acted as master of ceremonies, striking the floor with a staff to start and stop the music, and pointing out to us the half dozen girls, seated on the opposite side of the hall, with whom we might dance. It appeared that, according to Huahine etiquette, only unattached women were eligible dance partners.

Terai, the girl from Kaukura, played the guitar with a ready, forceful skill, and a group of men and women who sat with her sang the songs with which we had already become familiar on the waterfront at Papeete.

Maui, the lithe, dark girl who had danced on the green the preceding evening, was as clever on the floor of the ballroom. Firina, tall and very young, with a crown of Tahitian gardenia in her midnight hair, danced as well or better, though with a periodic nervous shudder that was somewhat disconcerting. She carried in one hand a handkerchief drenched with the powerful gardenia perfume of the islands. As I took her hand for the dance, the saturated bit of cloth, squeezed by one of Firina's involuntary twitches, dripped the strong scent down my arm.

The bare feet of our partners made a soft, shuffling sound as we glided

around the long hall, on the unwaxed boards. They did not talk as they danced, but floated dreamily, leaning close to their partners, as the monotonous, barbaric music drifted on. The young men, who outnumbered the girls five to one, danced occasionally when one or another of us rested, but, with Polynesian courtesy, insisted on the visitors' taking first choice of the available partners. Disregarding the leader's frown, I danced once with the "tabu" Terai, and, out of curiosity regarding native customs, tried to draw her into a conversation.

"Why are you tabu, Terai?"

"Because I caught an illness in Papeete. It wasn't my fault; I didn't know the man had an illness. I am the only girl in the village who is so afflicted. That is why I'm tabu and must not go with any man until I am well."

The party ended early, as such occasions do in the well regulated colonial towns. Usually the gendarme warns of the approach of the curfew hour of nine o'clock. In this case the young master of ceremonies merely thumped the floor with his staff and announced that the *arearea* was over.

Huahine is one island or two, according to the time of day. At low tide, it is one; at high tide the sea flows in over the isthmus that connects the two mountain masses, and Huahine-nui and Huahine-iti are two separate islands. But both are guarded by a single barrier reef, inside which a navigable channel extends partly around the western side.

We moved from Farenuiatea to Haapu in Huahine-ii, the smaller division of the twin island. A long bay bites deeply into the land; on its nearer shore stands a village on stilts, along a single street. Behind it, the fantastic shapes of kapok trees writhe broad arms from the steep hillside, above the rich, smooth green of vanilla vines.

The vanilla is an orchid, which bears a handsome white flower. Unless the flower is fertilized by transfer of pollen, the long seed-pod which is the vanilla "bean," yielding the vanilla of commerce, will not develop. In the natural home of the plant, this service is performed by hummingbirds, which don't inhabit the Society Islands. So the Tahitian vanilla flowers must be fertilized by human agency, the pollen transferred with a brush or a small forked stick - a circumstance which caused a beachcomber of our acquaintance to reject a job on a vanilla plantation on the grounds that it was beneath his dignity to "pander to a lot of white flowers."

The houses at Haapu are built of vertically placed small stems of bamboo, cage-like, on a frame of purau poles, with roofs of thatch, and are set high on substantial foundations of wooden piles. The elevation serves to keep pigs out of the houses, but probably is intended primarily for protection from dampness; the houses on the beach side are stilted higher

than those on the landward side of the street.

There was a pretentious schoolhouse, with neatly patterned sides of bamboo and a cement floor, and a rather shabby wooden church with benches around the wall and mats on the floor.

"It is too often so, under this godless administration," complained the priest: "a fine schoolhouse and a poor church."

"You should go to the Tuamotu," I told him. "There the people often have a fine church and no schoolhouse at all."

About thirty men were working in the street as we landed - carrying black muck, resembling cement, in baskets of plaited coconut leaves and building a raised road with ditches at either side.

"We are working out our taxes," one of them explained.

An elderly man with a swelling - elephantiasis, perhaps - that made a huge bulge in his blue dungarees where no such bulge ought to be, spoke a few words of English:

"I have been at sea, in my youth. I was in Samoa when the king of Hawaii was there."

Perhaps he meant Kalakaua's ambitious but futile expedition, when that last king of the Land of the Burning Mountains, dreaming of a Polynesian empire that would unite all the scattered groups of island dwellers, sent Robert Wilcox to Samoa in His Hawaiian Majesty's ship *Kaimiloa*.

"There are sixty men in the village," the chief explained. "The people cultivate patches of kapok, vanilla, coffee, bananas, and other crops, all around the bay."

It was a poor-looking village, less clean in appearance than most, perhaps because of the nature of its soil. But there were evidences of thrift. As we tramped over the inland trails, we saw coconuts hung on frames to dry, and bananas ingeniously suspended in trees to provide a gradual food supply for pigs as the fruit, one by one, ripened and fell.

One of the distinctions between civilization and other states of man is the degree to which man modifies his environment. Civilization scars the land with roads, dams streams, fells forests, rears cities of steel and stone. Here in the islands, the face of Nature was relatively unchanged - but only relatively. Here people also modified their environment. The difference was only one of degree. This, too, was a form of civilization, if that state be defined as one in which man has a settled abode, resides in organized groups, and cultivates the soil in a fairly systematic fashion.

These people lived more directly than we, whose contact with the natural resources which support us is often at second or third hand or even farther removed. Their homes blended more naturally into the scene than ours, for they were constructed of the materials that grew in the

surrounding forest. They lived from the forest and the sea and the small fields they tilled where the soil of the coastal plain was rich and deep. From the villages the trails mounted to the heights where grew the orange and the fei, the mape and the bamboo. They sold a little copra, vanilla, and kapok, to buy the few luxuries which their immediate surroundings did not afford. But their ancestors had flourished without these things, and they could do the same if necessary. All the essentials of life: shelter, fresh water, food, and human companionship, were there. It was a tranquil life, unharassed by economic storms or by many of the complications with which we vex our own.

Turning over a blackened log, I came upon a snail of a different type than any we had yet collected.

Dr. Cooke straightway showed evidence of keen excitement. "Hi Don! Come here!" he called to his assistant. "Gessler's got omphalomtropis!"

"Not contagious, I hope," I ventured, in a rather feeble attempt at humor.

"I hope it is," the good malacologist retorted. "I've been looking all over the island for that shell."

It was a rusty-looking, conical shell, which we soon found in considerable numbers under other logs and in the soil under dead leaves, into which we grubbed with rapidly discoloring fingers.

"You fellows are rendering an important service to science," our leader told his lay helpers as we sat on stumps, eating our coarse but substantial lunches and smoking the cigarettes that he doled out to us daily from his reserve - for nearly every one of us had long since spent his last bronze *toata*. "These little shells with the big names are one of the keys to the mysteries of the Pacific.

"And I'll tell you why: land-snails can't swim. They can only creep over the ground and up trees and bushes, and cling to moist rocks. In water, they soon drown.

"But similar species are found on islands scattered all over the Pacific. How did they get there? Well, it's possible that some were carried by birds; some may have drifted on floating logs; we may even admit that some may have been whirled aloft by hurricanes and set down far from their old homes.

"It's obvious, however, that the chances of their distribution by those means are slight. They are frail creatures; they can't stand much knocking around. One kind, the opius that you see everywhere, was brought to the islands accidentally by man, in recent times. But the shells that really belong here have been here since before there were any human beings in the Pacific. We can tell that by the amount of evolution they show. They have developed many varieties and even distinct species, and from the

time that takes, we know they must have been among the earliest forms of animal life in the islands.

"Little by little, we are studying them throughout the Pacific: collecting first, then classifying and correlating them. When we get through, we'll know just where each species exists and what the relationships are between those in one group of islands and those in another.

"We must work fast, for they're disappearing, with cultivation and civilization, the spread of introduced planes, and the burning off of mountains. It's already late. In Mangareva, we found only one little spot of native forest left. And we can find them only in native forest. These snails have developed fixed habits of life; they feed only on certain forms of vegetation and in certain conditions. If the vegetation changes, or the conditions change, they die. Few species can adapt themselves to a new environment.

"That's why we're here to-day, getting our fingernails dirty digging up omphalomtropis. These shells, when the evidence is complete, will help us determine a lot of things about the Pacific.

"For instance, it's possible that the land masses in the Pacific were formerly much larger. My friend Dr. Pilsbry thinks so. He has even mapped a 'lost continent.' If his theory is sound, it would explain why these snails are found in such widely scattered localities.

"Dr. Crampton thinks so, too. He says the whole animal life of the Pacific indicates a land connection - but it was a long time ago, long before man came into the Pacific.

"I must warn you that science, in general, doesn't share these views. The geologists especially don't support them. We don't say much about the subject, ourselves, because there has been too much nonsense spoken and written already about 'lost continents.' Too much pseudo-scientific bosh spread over the pages of Sunday supplements. But in these little shells we have a great and fascinating mystery. We may never find the answer. I've devoted most of my life to it, and we have still a long way to go - and meanwhile the shells are disappearing. Already some of the evidence is gone. We'll have to hurry if we're to get the rest of it before it vanishes.

"But we malacologists do say, in our cautious way, that the distribution of land mollusks in the Pacific tends to throw light on the prehistoric geography of the area.

"So do St. John's plants, and Zimmerman's insects, and the chants and legends that you and Emory collected in the Tuamotu. But there you have more complications. Many of those plants and animals were brought here by man. It's hard to say what is 'indigenous' and what isn't. Your chants, of course, are the product of man's invention, and their references are too

shadowy and vague to throw much light on anything except customs and traditions and a little of human history.

"But these things, too, help to clear up scientific problems. They have some bearing - the plants and insects, particularly - on the geographical history, and also on the history of man: the wanderings of the Polynesians, the distribution of mankind in the Pacific.

"Find out where the coconut came from, and you find out where the Polynesians came from. For the Polynesians carried the coconut with them, and the pig, and the dog, and chickens. Probably they also carried the pandanus.

"There's no end to the possibilities of these studies. That's why we're so interested in them. That's why I trapse all over the Pacific, collecting shells. And you fellows are having a part in it. You're helping make scientific history."

When we returned to the anchorage, young men and a few women were gathered around the ship in their canoes boats of a different type than we had seen, very narrow and swift, and so small that Zimmy, who tried one of them, to the amusement of the natives, could scarcely find room in it to sit.

"Come ashore to-night," the chief invited us, addressing his words particularly to the extremely conservative head botanist, to whom he apparently had taken a fancy. "There are plenty of girls."

We did go ashore in the evening, though not for the reason suggested by the chief. We took the portable phonograph and gave our hosts a concert in their schoolhouse, by the dim light of two small lanterns. Men, women, and children sat on the floor. The chief, a dignified, elderly man in a white coat, and with an engaging sense of humor, acted as master of ceremonies, and distributed among the children a sticky hard candy that had been provided by one of our party.

Our part of the entertainment was not an entire success. The audience liked a few of the more rapid Hawaiian records, but found the slow, wailing type of Hawaiian song tedious, and were disappointed that the machine did not reproduce with greater volume.

"Why don't you sing with the instrument, to help it out?" suggested an old lady, introduced as The Mother of the Forgotten Man, who sat near me.

The villagers' own singing was more interesting to me and probably to themselves. A fat woman started off in a high voice, in rapid tempo, and the rest joined in, producing an amazing volume of sound, while men, bending over cupped hands, imitated the note of a bottle or of a conch shell for the bass. A youngish man leaped into the circle of young women

who were singing - each with a sleeping baby in her lap - and danced with great spirit.

"Dance!" they urged us. But we were shy, hesitating to compete with these experts.

"Dance!" the Mother of the Forgotten Man pressed Mac, "and I'll see that you get the best girl in the village."

But Mac, too, was not to be lured. I fear the islanders thought us poor entertainers.

"They talk like Hawaiians," discovered Enoka. Indeed, as we listened to them, we could hear plainly the *w* sound, theoretically unknown in the Society Islands, which has replaced the *v* in Hawaii. Evidently a consonant shift was in progress, such as has occurred in the history of our own language. The more one studies human speech, the more one realizes that it is not static, but constantly changing and developing, even among the conservative tribes of primitive man. I had already heard *v* beginning to give way to *w* in some words in the Tuamotu, and *u* taking the place of *a* in other words, and whole syllables elided or slurred. Somewhat similar changes were going on in Samoa. As long as a language is spoken, it continues, like all living things, to change.

"I'm going to Haavai to pick up copra. Want to come along?" invited the Czech copra buyer at Farenuiatea, whither we returned the next day. Fosberg and I, who had been bargaining for luscious bananas on the wharf, stepped into his launch and bounced around a deeply in dented coast to the most attractive village we had yet seen in the Isles Under the Wind. Haavai is arranged somewhat like Haapu, where we had just been, but neater in appearance and with better houses. Handsome men and women greeted us; pretty girls looked on with shy smiles, and many beautiful children played in the single street.

In a dooryard a man was grating manioc roots, now largely used as a substitute for the arrowroot of former times and known by the same name - *pia*. Holding a long grater - a piece of sheet iron pierced with nail holes - between his feet and sitting on one end of it, he grasped a root in either hand and rubbed them alternately against the pierced surface. The white, flaky pulp was then gathered up in an oil-tin to be washed and strained for food or for use as laundry starch.

As we were watching this operation, a woman invited us into her house - a neat small dwelling of bamboo, with a screened veranda over which climbed a flowering vine opened for us sweet small drinking-nuts, and showed us long strands of partula shells which she offered for sale.

Fosberg bought two of them.

"If we can find a rare shell among these," he suggested hopefully,

"perhaps Dr. Cooke will bring the *Islander* here. I like this village. I'd like to stay here a month."

"The name of the bay and of the valley is Haavai; of the district, Fitii; of the village, Haavai," the woman informed us. "Do not go on the marae at Teavaava, on the trail to Maroe," she warned. "It is dangerous. The spirits that haunt it do evil to trespassers."

Our way, however, led back around the headlands to Farenuiatea and not over the mountain to Maroe. Nor did any shell we could find convince our chief that it was necessary to stay even a day longer at Huahine. The young people held a last party for us, that evening. We hauled anchor at dawn and dieseled swiftly across the twenty-mile channel to Raiatea.

Views like this rewarded grueling climbs in quest of plants, insects, and land mollusks. Looking southwest by south from the west ridge of Mount Turi, island of Huahine.

Haapu, the village on stilts, Huahine Island.

The village of Haavai, on Huahine.

21

The Gates of Hell and Heaven

IT HAS been recorded elsewhere, for the benefit of science, that the Gate of Hell is thirty feet long, fifteen feet wide, and eighty feet deep, and that a dark passage declines abruptly from its upper end, leading downward toward the sea.

I accept these measurements without having attempted to verify them in detail. The "gate," as we saw it, resembled the formation known to scientists as a lava tube: a black chasm in the shoulder of a great bare mountain where thin, cold streams coursed down inclined slabs of volcanic rock. And the entrance to heaven, nearby, was curtained in cool, clinging mist which writhed in a slow dance among the bristling branches of pandanus trees, of which it is chanted, in that country:

"The guardian of Paradise shall dwell in the fragrant branches of the *fara*."

The island of Raiatea was anciently called Havai'i or Havaiki, and there is more than a suspicion that it is the Havaiki of the chants of many islands, a center of dispersion of the Polynesians after they came into the Pacific though this Havaiki itself must have been named in memory of an earlier Havaiki farther west which has yet to be definitely located by science.

Raiatea is the chief of the Isles Under the Wind, and its capital, Uturoa, is a center of administration, a port for inter-island schooners and for infrequent ocean liners, and it tries, with indifferent success, to be a small edition of Papeete.

There are pretty villages in the Isles Under the Wind, but Uturoa is not one of them. Its single street of unpainted wooden shacks, every other one of them apparently a Chinese store, has a singularly drab appearance, and the crowd that gathered at the wharf as we arrived looked shabby and forlorn. We marveled anew at the little power plant, fueled, like that at Papeete, with coconut shells and husks. We browsed in the curio store, which occupied a dilapidated building that was gradually slipping into the sea, beside the wharf where the *Islander* lay. Dried balloon fish hung, like

Chinese lanterns, from the rafters; carved images grimaced in corners; hat-bands of land shells and sea shells, and pearl-shell ash trays, lay about, and there was the largest and most curious collection of carved coconut shells we had seen. On the walls hung numerous paintings by Gouve, a Dutch artist painting somewhat in the manner of Gauguin, yet with a touch of his own. A voiding the flatness of the master, he had built up his forms with the palette-knife to high relief, and his rich colors flamed in the shadowy room.

More utilitarian merchandise was piled about: oars and nets; crates of chickens and of crabs; pineapples; sacks of copra; vanilla; pearl shell. The proprietor, as he showed his wares, described them briskly in four languages, leaping apparently unconsciously from tongue to tongue, and as we left, he lifted a rich tenor in an operatic aria. We learned later that he had sung, in his youth, at La Scala. For the administrator told us something of his story.

Our curio dealer had been one of those children who sing ballads on the streets of Naples. His voice had been better than most, and he was led to study. He was still young when he sang at La Scala and when he took leading roles in most of the cities of the continent. And oddly enough, it was this very career, coupled with chance, that had brought him to the Isles Under the Wind. For he had become the leading tenor in the company headed by Madame Melba. The company was on its way to Australia for the star's homecoming tour - when the ship was wrecked off Huahine. The tenor was rescued by natives and brought in a canoe to Raiatea. It was some time before a ship called on which he could voyage to Tahiti, to sail from there for the great world. And in that time he had found a reason for staying at Raiatea. She was a native girl, and beautiful, the administrator said. She was dead now, and there had been no children. But it was too late for the singer to return to his former life. His voice - though it sounded rich and strong to us - was worn away from its former quality by age, and he had been here too long, grown too firmly into the island life, to change. He would end his days in that backwater of the world.

In the rest of Uturoa, there wasn't much to see. Just the dusty street, with its shabby buildings, curving along the shore. The street lost itself in a grove of palms. Far down near the end of it, we passed a house from which a nude brown woman emerged, holding a saucepan, and vanished into another building, presumably a bath house.

A convict, from the colonial prison, lent to us by the administrator, guided us to Temehani, where are the gates of hell and heaven. It was a long, slippery climb up ridges covered with dry grass and low staghorn fern to a rolling, boggy upland, overgrown with sedges; above that, a

forest of pandanus wrapped in mist, with pools on its muddy summit and streams running down among the rocks, and at the end of the trail a deep hole into which water gurgled hollowly.

That obliging felon, the guide, when asked for the name of the place, could only reply, "*apo'o pape*," which means "water-hole." But the barefoot boy, with a flag of blue shirt-tail fluttering from a rent in his trousers, who accompanied him, recalled a tale of his grandmother's, of a great eel that was supposed to have lived there.

"There was a man from Tahiti named Tii, who went to Maupihaa; there he found a young eel, and made a pet of it, and kept it in a little water in a tridacna shell. As the eel grew larger he kept it in a joint of bamboo. He also had a young pandanus tree that he loved; he called the eel his son and the tree his daughter.

"But both of them grew; he couldn't carry them around with him much longer, so he looked for a place where they would be safe. He put them in this cavern and went back to Tahiti.

"He came to visit them sometimes, and as he approached the land, he knew that they were safe, because he could see the sea-birds flying over the mountain.

"But some fishermen saw the birds, too, and thought there must be fish in the cavern pool. When they looked in, they saw the eel lying in the water under the pandanus tree.

"They let down a strong hook of shell and hooked the eel. The eel clung to his sister, the pandanus. But the fisher men pulled and pulled, and it seemed the tree would be torn loose and drawn up with the eel. So the eel let go and was drawn up and eaten.

"When Tii came again from Tahiti he knew misfortune had fallen upon his pets, for no sea-birds were flying over the mountain. When he found out what had happened, his belly was so heavy within him that he died.

"But the pandanus tree still stands, at the edge of the pit, and these orooves in the rock are where the fishing line o wore the stone away."

Here too were mementos of older and grander traditions: in this chasm, or one like it in that mountain, was the entrance to the *Po*, the Polynesian spirit-world, where the Great Foundation dwelt by the Water-Standing-in Darkness, at the center of Eternal Night.

On Temehani was the trail with two branches, the one leading to the hill where stood the entrance to the Fragrant Paradise. the other to the crater-cavern where dwelt Great Tangaroa of the Curse of Death, whose servants scraped the spirits of mortals into pulp, with shells, to sweeten the taro-leaves of the god's supper. The tale is told that a chief of Raiatea went there once, with a band of his warriors to find out what monster really

inhabited the cavern. He was a cruel chief, but he had courage. He told his men to lower him by a rope into the pit, alone. The men were to haul him back promptly when he jerked the rope as a signal. The men waited on the brink. The rope jerked violently. They gave no heed. It jerked again, still more urgently. They continued to stand idle, and eventually the rope hung slack. Then they hauled it up. Only the bones remained, stripped clean of flesh. And as they carried home the skeleton for interment in the marae, they said: "Now the land is free of the bad chief."

Here, too, the red-skinned Tahaki recovered the spirit of his wife Hina and brought her back to resume life in the world of mortals.

On this mountain grows the *tiare 'ape-tahi*, the one-sided flower, which, natives told us, will sicken and die if transplanted, and will grow nowhere else. When the first rays of the rising sun fall upon them, the buds burst open with a sound like a small firecracker; the stem splits, and the petals fly out, as if released by a spring, into a straight row, like half a flower. Rare and of delicate fragrance, they provided a term of poetic endearment to the ancient bards of Raiatea, who used to refer to a loved one as "my *tiare 'ape-tahi.*"

Everywhere over this boggy height, the fog blew in, cool, coiling around us, and partulae clung to the pandanus leaves and stems. There were many pandanus here; many and thick and high, and I thought of the beautiful lines of the chant:

> The fragrant fora,
> the fora of red cones and of yellow cones,
> the fara of white blossoms,
> these are the low trees that shall stand
> before the face of Atea.
> Roma-tane, guardian of the fragrant Paradise,
> shall dwell in its fragrant branches.
> Ear-ornaments and garlands shall be made
> of its cones and of its flowers,
> its leaves shall be torn into strands for mats,
> and the cones shall provide food for man and beast.

Zimmerman garnered some of his most prized insects near the brink of that gloomy abyss down whose wet, rocky sides the pebbles we dropped resounded on their way to the Great Darkness. And our genial leader was pleased with the fragile-shelled partulae and round, slimy trochymorphae that Anderson and I culled from the leaves of the trees that stand at the gate of heaven.

As the afternoon deepened into evening, we filed down the narrow trail along the sharp ridges. Waiting for St. John, who was burdened with a heavy load of plant specimens, I fell asleep on the long-cooled cinders of that ancient volcano and dreamed of Pai Arai, child of tragedy, who was

nurtured by Tangaroa in the *Po* and who emerged to view the world for the first time, from the crater of Temehani, dazzled by the setting sun. I awoke to hum a half-remembered Swiss Alpine song, heard long ago in youth:

> On the mountain, there is no sin.

Rain drove down upon us as we descended the winding ridge; we took shelter for a time in a shallow cave, bur as darkness crept into the valley we went forth again into the wind and rain.

Back aboard ship, while the battered phonograph ground out the melody and half-obliterated text of a Hawaiian song, I wrote:

> The cool mist rolls against the ridge; we stand,
> walkers in cloud, and feel upon our faces
> the breath of heaven and heart-beat of the land,
> the cleanness of the high and wind-washed places.
> Upon the mountain, here there is no fear:
> we are set free from worries of the town,
> feeling the joy of standing on the sheer
> sharp cliff where the wild water hurtles down.
> Thus must the gods feel, as in wreaths of cloud
> they stride above the vast disordered world,
> throw back great tawny heads, and laugh aloud,
> looking below to where the hills are furled.
> To this bare height we come, to find release:
> on the high trails, and here alone, is peace.*

*Reprinted from *The Gypsy*.

Faaroa is a deep fiord between abrupt mountains on the eastern side of Raiatea, where a broad stream pours out of a huge green valley. Steering into that bay in a deep, still October morning, beneath far peaks wreathed in mist, we anchored opposite a narrow pier, a church, and a store house, and two bamboo dwellings halfway up a steep slope to the right.

Men, one of them swollen with elephantiasis, greeted us, offering bananas. Plucking, as we went, the wild oranges of that fertile country, we climbed the steep lip of the valley, filling small string-puckered bags with partulae and tiny vials with smaller shells. Scattering, we hauled ourselves at different points up a sheer cliff, clinging to vines, roots and branches; crashed through thickets of staghorn fern, and were stopped by an impenetrable tangle of ieie and purau. Groping along the face of the cliff, where land snails clung in profusion to live and dead leaves, I clambered up another ladder of vines and joined Don and Yoshio. Together we swung down over the cliff on thick ropes of wild morning glories and ricocheted from tree to tree down the steep slope to the margin of

cultivation, where a handsome middle-aged woman in a red pareu greeted us softly in the island tongue and gave us oranges.

In the evening a few lights glowed along the shore: fishing-torches, embers of cooking-fires, and the dim lanterns that keep wandering ghosts out of the houses. A light breeze sifted down through the forest; the bay was quiet, with a slight swell that lifted the sampan lullingly. Captain Bill's radio program from California seemed an intrusion on the peace of the place - for it was unutterably peaceful, that still untrampled spot, far from the mean little seaport towns and their tawdry imitations of civilization.

That was the life we lived in the Isles Under the Wind. On another day we ascended a valley a few miles down the coast, along a muddy trail that crossed and recrossed a stream, and through a somber forest of mape trees, among which stood the retaining walls of ancient abandoned fields. Don and I, hemmed in a box cañon, hauled ourselves up the wall of it on vines, then crawled along winding pig trails that had a habit of stopping dead in the thickest part of the jungle of tangled ieie. A great smooth cliff reared dizzily from the upper edge of the forest; on its summit a cloud hung, squeezing out fat drops of rain that splashed down the rocky wall. Crashing downward again through that savage jungle, we bathed in a cold stream and shook down oranges from a tree that spread its branches over the bank. On the trail below, a woman called to us from an open-faced thatched house and gave us roasted mape nuts, mealy and delicious, like huge chestnuts - the rich, good fruit of the land. And so we came down to the shore to join our comrades for the run in the speedboat back to the ship.

A little way out in the lagoon, the outboard motor sputtered and then was still. Alec worked frantically to repair it. But every attempt to start it failed. We had hit one coral head too many.

Evening was already purpling the mountains; the mottled tide under us was setting seaward, and night crouched behind the ranges. We were in a disabled open boat, with no oars or sails. It drifted, slowly, broadside on, heavy in the water. We could have swum ashore and walked, or borrowed canoes. But we didn't want to lose the boat. We stayed with it, at the risk of being carried out to sea.

Fortunately the current was not moving directly outward, but inclining slightly in the direction of Faaroa, where the sampan lay. I can feel now the rough edges of the duck-boards as we ripped them up and awkwardly paddled with them in the stubborn, dragging sea. It was hand-blistering, back-breaking, and discouraging work, for all our efforts barely increased the drifting speed of the clumsy craft, with the dead motor weighing down the stern.

Now and then Alec and Yoshio would tinker with the engine and coax it to a brief burst of energy, but always it sputtered and died again, just as our hopes were stirred.

The lavender tentacles of dusk coiled down out of the misty valleys and the breeze freshened, blowing seaward. And still we drove the blunt and clumsy boards into the darkening water. Inch by slow inch the dimming shore crept by. With painful slowness, we were working toward Faaroa and the *Islander*.

The last point loomed in the curdling dusk.

"If we can get around that point before dark, we're safe."

We crept closer. We had almost reached the point, but in five more minutes or less, darkness would drop over the bay. Anxiously we scanned the darkening shore. Were we still gaining? The current out of the bay gripped us, pushing us seaward. Were we as much as keeping even with it?

Just then Alec persuaded the motor to a last, clattering, wheezing effort. We plunged the crude paddles anew into the darkening water with a final desperate burst of zeal.

As the motor's last feeble kick died away in a sputtering cough, we rounded the point. Toward the head of the hay, only a few miles away, we could descry the long, low bulk of the *Islander*. The conch-roar of her whistle answered our shouts; Captain Bill and Enoka came in the other outboard motor boat and towed us in.

There was a mild *arearea* on the deck that evening. Canoe loads of people from all around the bay boarded the ship and sat in close-packed rows on the forward deck, listening to broadcasts from a California station which bewildered more than entertained them, and afterward contributing soft, rapid songs of their own. The island night hovered about us, spreading wings of peace.

Teteroa, on the west shore of Raiatea, is a land of precipitous mountains down whose dark cliffs leap many waterfalls. A deep double bay was our base on that side of the island, whence we fought our way through the familiar ieie, aeho, and staghorn, stung by wasps and gashed by thorns of low-growing pandanus, to a high ridge where our hardships were sweetened by green but juicy oranges. From afar we had marked a tree that seemed to promise ripe ohia-apples, but when we reached it, it proved to be only a hernandia, whose lusciously colored but hollow fruit, the Pitcairn Islanders had told us, was poisonous.

It was in that region that we sought the elusive turgida, a rare species of partula, and sought it in vain. But we found lacy, delicate orchids in the high forest, where we bathed in a rocky stream. Crossing the brook by

building a ford of loose boulders, we emerged from the forest near a thatched house whence a woman called: "*Haere mai*" ("Come"). Aided by an elder woman whose nose was deformed - by leprosy or, as we hoped, smallpox - she gave us papayas and led us over a log laid on the black mud to the homeward trail.

"The river," she told us, "is Paaoio, the islet and the pass Tiano, the mountain Toahiva." The bay on the right, she added, was Ereeo.

In a valley leading out of that bay, on another day, natives met us on the trail - a woman carrying sweet potatoes, a man with bananas, his right arm in a sling and showing a huge swelling as of an infected wound; four men far up the valley, cutting bamboo. All greeted us pleasantly, if a little puzzled as to why we should be climbing the mountain. It always sufficed to tell the natives that we were gathering shells, for they understood well the use of the larger partulae in wreaths and hatbands. But once when we showed them a vial of tiny tornatellidae, scraped from the under surfaces of dead leaves, they clucked and exclaimed in amazement. They had lived all their lives in this country and had not known that such things existed. They could not fathom why we wanted these minute shells, which were too small to be made into ornaments.

A sheer cliff, over which poured a thin sheet of brio-ht clear water, halted us at the head of the valley. Alec and I bathed in a rock-rimmed pool, dried our skins in the sunshine, and washed our clothes on a large flat stone. We fed bits of bread from our lunch to the big fresh-water shrimps that crept from under boulders, and to a spotted fish, like a trout, that held its position in the swift current or darted effortlessly up stream against it.

There was rejoicing, in the evening of that day when the hunting parties returned to the sampan. For Don and Yoshio, in another of those dank, breezeless valleys, moldy with the smell of sodden leaves, had found the turgida and claimed the reward of fifteen francs offered by Dr. Cooke.

"Another contribution for the Borabora fund," exulted Sam. He had been telling us, ever since we left Papeete, that he was saving the pooled remains of the private finances of our members for a farewell *arearea* at Borabora the last high island we were to visit before we set out across the broad spaces of the equatorial sea toward home. The fund had started with the collection taken in Papeete for the ransom of Annie, daughter of Bubbles, whose story already has been told. When Ruru Spitz adopted Annie, the "Annie Fund" became the nucleus of the capital of the "Borabora Arearea Corporation.".

It was at Uturoa, on a flying call between our explorations of Faaroa and Teteroa, that Sam and I, marketing for the galley, bought T-bone

steak. We found it at Uturoa's one hotel - a neat enough place, midway down the straggling street of the provincial capital. A dreamy eyed and beautiful Tahitian barmaid and a portly French Tahitian host brought it out - the only beef in Uuroa, approximately eight pounds of melting-tender T-bone for the equivalent of one American dollar. We bore the treasure in triumph to the ship. Alas! there followed one of the minor tragedies of that sublime and ridiculous voyage. Ernest, luckless lad of irreproachable intentions and unaccountable performance, transformed that steak into an extraordinarily tasteless stew.

It was a good life, however, this life of forest and stream and of sheltered, deep-curving bays. It was a good life, despite the vines that wound around necks and ankles, waists and legs, and the slippery stones that turned under our feet in the slimy mud; despite the ferns and roots that broke off in our hands as we clutched them to stay our falls down steep slopes, and the cruel jungles through which we toiled, cutting our way foot by foot or throwing ourselves headlong to crush a path through thickets of fern that defied the edges of our cane-knives: a hard life but a happy one - better, we told one another often, than wearing oneself slowly away at a desk or a machine.

22

Farewell to Borabora

TAHAA LIES within the same reef with Raiatea; a smaller island, deeply indented with many bays and ridged with sharp mountains radiating from a central core. Within that sheltering reef, we steamed in the early morning past deep blue bays, with sandy islets on either side of their passages, and villages nestling among coconut groves, to Haamene, the Tahaa village whence we brought away some of the friendliest memories of our voyaging.

Haamene Bay cuts nearly halfway through the seven mile diameter of Tahaa. Men came out in canoes as we anchored in that spacious water, bringing crabs, shrimps, coconuts, bananas, papayas. Women called out directions and girls smiled from thatched doorways as we tramped through the village on our way to the forest. Simple people, they lived well on the fruits of land and sea, with no economic struggle to embitter them or to make them crafty and hard, as are too many of our own race.

Beyond a vanilla plantation, whose leaves were populous with fat partulae and conical zonitids, we toiled up a steep ridge, slashing at jungle growths with knives, until, at the beginning of the high forest, I took from the bole of a tall, smooth tree our first giant helicina - a round, flat, button like coil of shell, beautifully tinted a dark red.

That mountain was only a couple of thousand feet high, but it took us two days to climb it. It was hard going up that savage thrust of rock, and harder coming down, stumbling over hidden roots, tripped by entangling vines, and falling on the spear-like stumps of the ieie we had lopped off as we climbed. We got half-way up the first day, and returned the second to struggle through unremitting jungle to the top. The last lap was a sharp, sheer-sided ridge with an irregular edge up which we swung ourselves from vine to vine and root to root, which as often as not broke with our weight. From the rocky hump at the summit we could see five blue bays, in one of which lay the *Islander* like a toy ship in a bathtub. It was a heart-lifting view, and we needed it, for the weary journey down.

In the evening there was ar*earea* in the village. Women came out to us

in canoes to sell wreaths of jasmine and sweet cakes of manioc. We rowed ashore in the velvety darkness, stirring pools of phosphorescent ghost-fire in the still water. Young men crowned us with wreaths and led us to the Chinese store where young people were dancing to the brisk music of accordions and harmonicas. The store was hot and crowded, and the party soon moved to the open air in the schoolyard, dancing on the uneven ground.

A lantern flared smokily over the scene; the air was heavy with scent of jasmine and gardenia. The music was rapid, and the girls more agile on the rough ground than we. Gradually most of our party withdrew to the sidelines and watched the young natives perform a series of steps that were strange to see in that place - not native dances, but old European square figures: gavotte, schottische, quadrille, and once, if such a thing could be, a rapid minuet - keeping the intricate patterns clearly defined on the uneven earth floor, to the high whine of the harmonicas and the steady, quick throb of guitars. The community of Haamene must have had at one time a teacher who was versed in continental dance history. It was odd to watch these brown, sleek-shouldered girls and muscular youths performing, in barbarically accelerated tempo, the stately dances of the Old World.

On our mats, spread for coolness on the cabin roof, we talked late, under the stars.

In an early afternoon we steamed along the impressive panorama of Borabora, its great reef bearing many large islets that reminded us of the Tuamotu, to the single passage, Teavanui, that leads into the harbor of Vaitape, our last stop in those islands.

Borabora is not a large island - only about four an a half miles' length of land within the reef and lagoon - but it is spectacular, with its great thrust of rock, Taimanu, towering abruptly into the sky and overhanging as if threatening the land below.

Men bearing scars of disease - one with a swollen leg and foot that almost filled us canoe - came out to sell dance costumes of purau bark and lacy sheets of soft breadfruit-bark tapa, and headdresses ornamented with bright seeds and shells. Finding us indispose to buy, they urged us to trade for these things the ragged clothes we wore. More able-bodied natives offered to dance - for five hundred francs. Young men slyly pressed upon the visitors the attractions of this or that young woman. It was clear that Borabora had become commercial. A motion picture had been made there - one of the finest I have seen to this day but in making that motion picture, "Tabu," the late Gustave Murnau had corrupted Borabora.

Matahi, hero of that famous cinema play, came, in a broad-brimmed

pandanus-leaf hat, to see the strange ship, and posed, rather sulkily, for photographs. Matahi was in an ill humor.

"Look at this!" he complained, showing a copy of a French cinema magazine containing an account of "Tabu" and a photograph of a half-French Tahitian purporting to be himself. "Lies! All lies! The white men rob us natives even of our names."

"Murnau, who made that cinema, has suffered the wrath of the gods," commented Matahi's handsome wife, in her neat cottage on the outskirts of the town. "He was a foolish *Popaa*. He made his cinema on the sacred islet, where it is forbidden for men to walk. He desecrated the *marae*. In Tahiti, he built his house on tabu ground. And now we hear that that house is haunted and nobody will live in it, and the curse of the gods has followed Murnau himself to the land of America, and he is dead. And Reri, who played in his picture - the news comes to us that the gods have stricken her. It is not a good thing to meddle with the tabu."

But Matahi also took part in that cinema," I interjected.

"He did, but he approached all things with reverence, and not without prayers and observance of ceremonies. To him who is true of heart, the gods will do no harm."

Thus we came to Borabora, the "first-born" of the islands; Borabora of the Fleet that Strikes Both Ways, Borabora of the Silent Paddle - and found it sadly changed. But not altogether corrupted: happy nude children were swimming and diving from the pier; people greeted us kindly as we passed their doorways, and the chief was as fine a man as we had met in all the islands.

St. John and I climbed to the base of Taimanu and collected along the cliff, scraping up a pocketful of fossil land shells from its pitted face.

Here, too, there was *arearea* in the evening. A schooner was in port from Papeete, bringing us news of our friends there, and some whom we had known in the capital were aboard. We exchanged visits with them, dashing across the harbor in the rehabilitated speedboat; then, later in the evening, we accompanied a party from the schooner to the outdoor dance floor of cement on the waterfront. Guitars and harmonicas were sounding, and the young people made us welcome. As often happens in the later hours of such a party, the foxtrots were giving way to staccato native dances. A white-haired Englishwoman tourist from Pedro Miller's schooner leaped forward and performed, somewhat stiffly, the movements of the dance, dragging me with her to contribute my Tuamotuan version of the step - more to the amusement of the natives, I fear, than to their admiration. But she was clearly one who appreciated the island people and wished to enter into their arts and pastimes, and I would not withhold my coöperation.

As we sat on the smooth cement in the kind southern darkness, young men and girls grouped around us, seeking to promote temporary alliances between members of our party and Borabora's unattached young women.

"You will like Maruta, here .... You don't want her? Then Uruhora" - indicating a slender barefoot girl with whom we had danced earlier in the evening .... "Won't she do, either? But surely you will go home with Tapita" - a large wench with a soft voice and a merry laugh, who was sitting near-by.

"Do you want her, or not?"

This question, put in the girl's presence, definitely placed the visitor "on the spot." How could one avoid giving offense?

"It is not our custom."

"You are in Borabora, and you should follow the Borabora customs."

Perhaps they would understand some more practical excuse.

" We have heard that there is disease at Borabora."

The promoter, turning to Tapita, inquired bluntly: "Have you any disease?"

"No," she answered, without apparent surprise or resentment at this intimate query.

"See - she is sound, and so clever! " - and he illustrated with eloquent pantomime.

"It is not our custom," was all we could say.

Our rejection of their importunities displeased our hosts. Derisive shouts, reflecting in uncomplimentary terms upon our masculinity, followed us as we strolled back to the wharf.

"The Borabora fund will buy a case of wine," reported Sam, and we went ashore next day to bargain with the Chinese merchants for the first basic material of an *arearea*. The wine came duly aboard - but the other requisites were more difficult to obtain.

"Monty," lamented Sam (who, being his nephew, referred to our distinguished leader, Dr. Cooke, by that familiar nickname), "Monty says we can't have any natives aboard - and how can we have an *arearea*, without natives?"

"*Aita peapea*," suggested Alec. "That's no difficulty. We'll have the *arearea* on shore."

"No good," said Sam dourly. "I've made inquiries. This is a bone-dry island, as far as natives are concerned. Any native drinking, or any white man who gives a native a drink, lands in jail."

"Well, then, I'll get the speedboat from Bill, and we'll have the party on the islet at the harbor mouth. They'll never come out there to arrest us."

But this, too, proved impracticable. Bill wanted the speedboat, to pay a visit to his fellow-captain, Pedro Miller, across the harbor. I think it was

his brother who inflicted the vengeance of the Borabora Arearea Corporation upon Bill. As the captain, immaculate in his best white suit; stepped into the boat, the motor started prematurely, throwing the skipper off his balance and dumping him into the bay.

But we still couldn't have the speedboat, and the natives, irritated by our refusal of their offers, were not inclined to cooperate. The *arearea* turned out to be a stag party in the close, hot, focs'l. Wili, the Rapa boy from Pedro's schooner, was the only guest from outside our company. In the low, smoke-flled, V-shaped space, sitting on our bunks, we sang, as Yoshio twanged the guitar, the songs of the Papeete waterfront. Wili criticized our technique candidly:

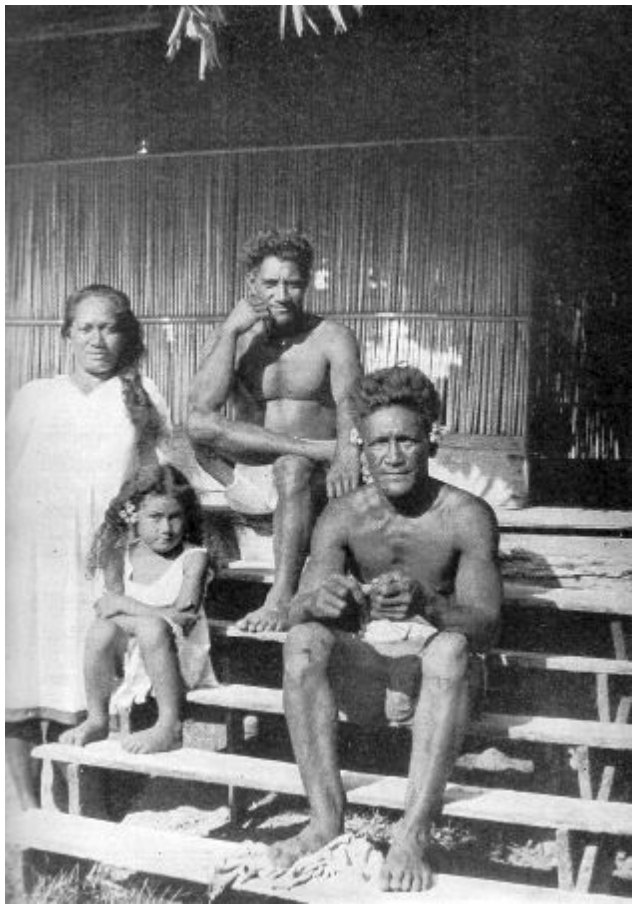
"When you sing *Teie te ara*, it's not bad. But when you try to sing *Ei roto i temauati*, it's...how you say in American ...lousy!"

Our last day at Borabora was spent quietly, in preparation for the voyage. Don, Yoshio, and I sat awhile on the wide veranda of the house where dwelt the charming golden-brown village schoolmistress - a buxom barefoot young woman in a red dress, who sang sweetly while her husband played the guitar in the Hawaiian style, a rare accomplishment in the Isles Under the Wind.

"Prince Kalakaua, from Honolulu, was here, with Hogar', the Hawaiian young man from Papeete and the taught us to play the guitar with the steel. Ha! when Kalakaua and Hogar' were here - *beaucoup arearea!*"

We photographed shy brown children and ate sticky sweet slabs of banana paste in the community house with a group of friendly men. We swam in the warm water of the harbor and rinsed away the salt with fresh water from the hose with which the tanks were being filled aboard ship - then, late in the afternoon, headed into a rough sea homeward bound.

The village of Vaitape, Borabora.



Chief and family at Borabora.

23

"Whiskers Land"

A BIG WAVE crashed over the afterdeck where I stood on the tilting planks with Dr. Cooke. It hurled me against the rotten rope-rail and drenched me from head to foot.

"You'll get pneumonia; you'd better go below and change." I'd rather have stayed wet, but one is expected to heed the advice of one's elders, especially when they are in command. The foul air of the fume-filled focs'l smote me as I plunged through the narrow opening beneath the pilot house. Gasping and reeling, I scrambled up again and staggered to the rail. I had thought myself fairly well hardened to the sea, but it appeared that I had been too long ashore and in quiet waters to withstand the combination of diesel fumes, stale air, and the tossing of the ship. Again and again I braved the reeking hole, each time to be driven out, wet and cold and sick, into the weather. Alec, at the wheel, laughed loud and long at my disgrace. It was indeed humiliating. Here I was, signed on the papers of a seagoing vessel as an "able-bodied seaman," and my semicircular canals were behaving in this lubberly fashion! At last, utterly weary, I was able to hurl off my sodden "sailor moku" dungarees and "palaka" jacket and fall, exhausted, into my bunk.

I revived in time to take my trick at the wheel, and it was worth the wet and cold and the internal discomfort of that turbulent voyage of a night and a day, for the sight of Flint Island in the dawn. Low and palm-crowned it lay in the early light, a green coral island like Tepoto, whence the fragrance of piupiu flowers drifted toward us as we lay in the lee.

Men came off in a whaleboat which they launched precariously from the tiny "harbor" that had been blasted out of the reef.

"A*ue!* No mail? But can you give us flour and tobacco? And sugar, and old newspapers? We've had no ship from Tahiti in three months."

We supplied them with some of these things, and broke the news to them that their supply-ship had been wrecked, with many others, in the storms that had raged a few weeks before.

It was good to feel again the coral ground under our bare feet and to

inhale the fragrance of tournefortia along the sands. Flint is a small island, reminding us, when we landed, still more of Tepoto, with its grass and shrubs under the coconut palms and the dried-up lagoon in the center, where the shells of long-perished tridacna still protrude from the dried mud.

Those who cherish the notion that Polynesians are lazy should see at work the score or so of merry Tahitians who prepare the copra of Flint Island. The ripe, fallen coconuts are picked up in the forest with spiked poles and tossed into piles; then husked, in four deft motions, on an iron-tipped stake. The hand seldom slips, but when it does, the sharp point inflicts a cruel gash. When that happened as we watched, the laborer laughed a broad Tahitian laugh and went on with his work, the blood streaming over the brown husks.

The husked nuts are carried in baskets to a plantation railway and loaded into cars, which are pushed by hand long the track to a shed. There men and women chop the nuts in half, scoop out the meat with a few deft cuts, and throw the shells in a pile - all with amazing speed, keeping it up steadily for hours at a stretch and with a minimum of lost motion. They worked more like machines than human beings - yet they took time off to give us ripe coconut meat and sweet sprouted nuts and a few tiny papayas.

Copra, the dried meat of the coconut, is the source of coconut oil, which goes into a wide variety of products, from cosmetics, confections, and some oleomargarine to glycerin for high explosives. The husk yields a fiber which makes doormats, felt padding, and cordage. The shells, when burned, produce a fine charcoal. The young nuts furnish drink and a bland, jelly-like food; the sprouted nuts are tender and almost cloyingly sweet; the leaves provide building material and baskets and mats. A coconut shell makes a good drinking cup or a water bottle; it can be carved into durable utensils and tools; the leaf-bud makes a delicious salad. In other lands I have often wished for a bit of coconut husk with which to scour dishes. There are few trees that have so many gifts for man.

When we left Flint, the afterdeck was piled high with the drinking-nuts of that lonely land, and the galley was stocked with small chickens, fresh eggs, and huge, bloated looking coconut crabs which clashed their wicked claws angrily as they hung from the knob of the door. When I came on deck the next morning we were off Vostok - the island for which we had groped in the mist at night on the voyage down, not seeking at that time to find it, but to avoid hitting it. With the night too murky to take sights, Captain Bill had reverted to Polynesian methods of navigation: listening for the cries of birds and the sound of surf, casting lights alongside to gauge the color and drift of the water, sniffing for the smell of land. But now we approached the island in full morning. It was a small, green place,

heavily forested with puka trees, as nearly all the islands must have been before men cleared the native forest away and planted coconuts upon them, and with a violent surf breaking on its steep reef. The trees grew so densely that we could not see into the darkened interior, over which clouds of sea-birds flew with shrill clamor. We did not glimpse even the usual flowering shrubs, though I thought I could detect their fragrance on the breeze that blew from that savage shore.

"I won't risk a boat in that surf," declared Captain Bill. But on a later voyage he landed there and brought back specimens of its monotonous flora and fauna to the museum. Only two kinds of plants grew there, he reported: the puka and a portulaca. The dense shade of the pukas discouraged other vegetation.

We lay off the island all morning, fishing and shooting sharks that rose to bite the fish off up to the head as we tried to haul our prey out of the water. Yoshio and Enoka repaired the engine which was weakening under the strain of months of voyaging far from shops. Then on we steamed into the lonely sea. In the fine moonlight night we sat for hours aloft, singing island songs.

It was good to feel the quiver of the wheel under one's hands, homeward bound after many months of wandering. The sea was very blue, flecked with white; there was no land within hundreds of miles, and rarely a ship. In the afternoon of the first day after Vostok, we sighted a steamer crossing our course, far ahead, and altered our direction a few points, hoping for a closer look at this visitor in those unfrequented waters-but she drew away from us before we could distinguish her character.

Regularly, in those days, the tired engine failed twice or three times a day: blown gaskets, and more mysterious troubles, kept Enoka and Yoshio smeared with grease and muttering cheerful profanity. With unaccountable regularity, these mishaps occurred at mealtime. Sitting at the long table in the cabin or chopping the ends off drinking nuts on the afterdeck, we would speculate on where we might arrive if our engineers failed to stir the motor to life. Calculating the drift of wind and current in that part of the Pacific, the likeliest port, we concluded, would be Tongareva, or, if we missed that, Manihiki, far to the west. Whether we could drift that far before the food and water gave out, was another mathematical problem.

Captain Bill refused to be perturbed. "Tongareva is a good island," he reported. "They make the best hats and mats there of anywhere in the Pacific. And we'd be sure of a welcome at Manihiki. It's my ancestors' country."

As often as the motor stopped, however, Yoshio and Enoka revived it - though they had parts strewn over the grimy engine room in bewildering

array. In a wide Pacific sunrise we passed along the grim, desolate shore of Malden - a sun-baked triangle of coral and sand, with a shrunken lagoon in its flat interior and low, stunted bushes along its arid, inhospitable coast.

Was that a man toiling slowly toward us up the long glare of sand? A castaway - for the guano station at Malden was abandoned years ago. No, only a clump of bush a little taller than the rest. We steamed close by the old station its sprawling buildings, with their corrugated iron roofs, still standing forlornly beneath the equatorial sun; the radio antenna trailing above them, and the loading device projecting into the precarious anchorage.

This, then, was Malden, island of the mysterious ruins from which much of the mystery has been dispelled by my scientific friends. Emory has pointed out that drawings and descriptions by early voyagers exaggerated the height and shape of the ruins, which, when examined a few years ago by trained archeologists, proved to be nothing more nor less than Polynesian open-air temples, such as may be found on many islands. The only mystery is whence came the people who built them, and whither did they go? The sacred platforms, though fairly large, are by no means cyclopean as early descriptions suggested, but they suggest an answer to the first half of the question. Emory has related them to similar structures on Raivavae, in the Austral Islands, twelve hundred miles south. There are thirty-five to forty of these stone structures on Malden, indicating that the island may have been inhabited for a considerable time. As to why it was abandoned, the natives of Manihiki, who called Malden "Terapukatea" or the place where there was no shade but that of a few puka trees, had a tradition that the people had been "washed off" Malden by a storm. In any case, life there must have been difficult. Malden has very little rain, and the seven wells the prehistoric inhabitants dug there must often have been dry. White occupants, as well, coming later in time, have given the island up to the terns that flew over us that night in the diffused moonlight, sounding their ghostly cries.

Most of our party were on the cabin roof taking sun baths as the *Islander* passed the equator for the second time. From my post, steering our craft over the smooth, sun shimmering water, with iridescent flying-fish skimming along our course, I never knew the precise moment when we passed from south into north latitude; only that it was shortly before noon of the twentieth of October.

We were wakeful in the evening of that day, remaining on deck to catch sight by moonlight of Christmas Island known to the Tahitians as Fenua Huruhuru (Whiskers Land), after the bearded priest who once developed it, and to Captain Bill's Manihiki ancestors, who seem to have

been everywhere, as Titimatairangi. We talked of the voyagers who had preceded us-of Captain James Cook, who ate a Christmas dinner of turtle there and named the island for the day; of William Greig, who planted coconuts there; of Lord Leverhulme and Father Rougier and others who exploited it and gave such unoriginal names to its settlements as "London," "Paris," "Poland," and "Foch." We spoke, too, of the unidentified stone age voyagers whose rude adzes have been turned up among the low lines of stones that seem to mark old village sites. And now we came, the strangest ship and crew, perhaps, the island had seen.

The sampan entered the great lagoon that opens to the west between curved crablike claws of low, sandy land. There was commotion ashore; a canoe put out. Sighting us afar, the inhabitants had at first mistaken us for their expected supply schooner (which would never arrive, having run on the reef at Raivavae) and seeing us low in the water, with a stubby mast, had concluded that she was disabled. As we came nearer, they were puzzled, for no such ship had ever been seen in those seas. When we were close enough to enable them to read the name, *Myojin Maru*, which the sampan still bore in large letters along her bows (for it takes time to change the name of a ship legally) their bewilderment increased. Was this the Japanese navy, come to seize the island?

When we had identified ourselves, Franta Jerabek, the manager, made us welcome over glasses of aromatic anisado. He was a Czech, who had served as an army intelligence officer in the first World War and then had gone, with his Austrian-born wife, to Tahiti to recover his health. Their son had been born in Tahiti. The three were the only white people living on Christmas Island.

"When my contract expires," he told us, "I'm going home. I've seen enough coconut trees - more than I ever supposed existed.

"We make the plantation pay, even in these times," he said, "by economy and conserving its resources. Every thing - leaves, shells, husks, even the water of the nut goes back into the ground; we burn nothing, thus the soil doesn't wear out so soon .... It costs more to carry a ton of our copra to Tahiti than to produce it here."

Even so, he was worried over the low price of copra and the high tariffs. The company might have to engage in some other business, he said.

"We might pack fish here, but again, we are far from a market. Or we might plant trochus shell; I hear the price of that is holding up."

Only about twenty workers - all Tahitians - were employed then at Christmas, though it is a huge island of its kind, one of the largest atolls in the Pacific. They were paid forty-five cents a day, but as there was little to spend it for, the manager said, an employe usually was able to save about

two hundred dollars during the term of his contract.

Only the men worked in the copra. The women wove mats and hats, cooked, and kept house for the men. Their family organization seemed somewhat sketchy. There were about twice as many men as women. "A*ita peapea*," replied one of the men when some of us inquired about it. It is a phrase one hears often in Tahiti, meaning literally "no trouble" He explained that the women were shared amicably, jealousy was unknown, and so everybody was happy.

Since the island is large and the major coconut groves are situated some miles apart, on either side of the lagoon, the workers occupied the two main "towns" seasonally. they worked their way around the island, starting from Paris, on the southern point, and approaching "London," on the north, and living in whichever was the nearest to their work.

There was a small store, but there was not much in it to buy, beyond a few simple supplies and a few canned goods. But, like the Tuamotuans whose home lands are similar, they lived mainly from the land and sea. Fish and shellfish and crustaceans were plentiful, and the Tahitians hunted a small seagoing goose with red feet and blue bill. "Hunted" is perhaps not the proper word. The birds were knocked down with clubs while they were sleeping on low boughs.

There wasn't much fresh water. Christmas is in the "dry belt" of the equatorial Pacific. A little rain water was hoarded in cement tanks. There was a well, but the water in it was brackish. Even the juice of the coconuts tasted a little salty; we thought the coconut water of Christmas the poorest in quality we had encountered. But the manager said the dryness was good for business. Christmas Island copra shrank less in drying, because it contained less moisture, so it produced more copra to the ton of nuts.

The men put in an eight-hour day, quitting work at four in the afternoon. Then they had time to hunt and fish, or to lounge about with a guitar and an ukulele.

We saw a fair slice of the island, driving nearly all day in the plantation truck without making a complete circuit of it. It is a desert-like country after one leaves the coconut groves: broad salt-flats, acres of "hardpan," curious polygonal formations like artificial paving; brackish lakes at various levels, some green, some blue, some red with marine algae; heaps of sudsy alkaline foam piling up on inland beaches and rolling before the wind like tumbleweeds. "Booby birds" cackled like a man laughing as the car passed, and waddled in ungainly displeasure from the track. Frigate birds followed the truck as they might follow a ship, swooping low, screaming, and "bombing" us from the air.

As we moved farther from the settlements, there were thousands of birds wheeling overhead: fluttering terns and majestically sailing frigate

birds, petrels, and I don't know what others, and one small land bird, somewhat like a vireo, pursuing insects in the tournefortia bushes near the solitary clump of palms where we lunched. I think one of the "natives" said it was called 'o'io'io, and that it existed only on Christmas Island.

Much of the interior country was flat and sparsely covered with vegetation; some of it quite bare, though we drove at one place through acres of yellow-flowering ilima that would have delighted the lei-makers of Oahu, where the ilima was the royal flower. And so we came to the desolate Bay of Wrecks, a shallow curve of yellow beach behind which rose dunes, partly covered with coarse grass. One of them was pointed out as "Mount" something or other. It must have been nearly forty feet high.

Bits of wreckage still lay along that shore. It was a menace in the old sailing-ship days, and still is. The island, although large, is so low that it is not visible at a great distance, and a strong current sweeps from the east toward the bay. In 1836 the English ship *Briton* was wrecked there, and Captain George Benson and twenty-nine of his crew lived on the island for six months until they were rescued by the American whaler *Charles Frederic*. The whaler *Mozart*, of Bremen, went on the reef there in 1847, and within a month of it, the Chilean ship *Maria Helena*, with United States Commissioner Anthony Ten Eyck and his family aboard. Some of the crew made their way in the ship's longboat to Honolulu, whence rescue was sent. The party was picked up some four months later by the French corvette *Sarcelle*. The *J. C. Fremont*, a lumber carrier, ran ashore there in 1856, and most of its cargo was salvaged by Honolulu interests. In 1908 a steel freighter broke up there and its cargo of pine and redwood strewed the beach, providing material for the manager's house and the copra sheds.

We took samples of the island's scanty flora and fauna, and some of us grubbed in the stony sand for relics of prehistoric occupants. Emory told me later that the stone adzes and other artifacts which had been found at the supposed village sites were of different types, indicating that they had been left by different parties of voyagers. There was nothing to indicate, he said, that the island had been occupied continuously by Polynesians. More likely, he thought, the relics were those of castaways or of voyagers who had called there briefly on their way somewhere else.

So passed a late October Sunday, and we sailed again. As we sat on deck, we discussed the story of Christmas Island and its former "king," the late Father Emmanuel Rougier.

24

The King of Christmas Island

EMMANUEL ROUGIER was dead, but some of us remembered him as we had seen him in Honolulu, sturdy and bearded, on the deck of his schooner - Father Rougier, "king" of Christmas Island. And most of us knew the story.

It sounds fabulous enough, but this is the tale as it is told n South Sea ports, and the island and its coconut groves remain to prove a part of it.

Many years ago Pierre Cecil escaped from the French penal colony in New Caledonia, committing himself to the Pacific in an open boat. In this craft he eluded pursuit and sailed a thousand miles or more, eventually arriving in Fiji. There he sought the aid of Father Rougier. There is the usual legend that Cecil was an innocent man, convicted wrongfully by a plot of enemies who sought to steal his fortune. However that may be, he seems to have had ample funds left. The tellers of the tale relate that he gave Father Rougier half a million dollars in gratitude for the priest's good offices in obtaining his pardon.

Cecil meanwhile fell in love with a Fijian girl, and Father Rougier married the couple. His superiors reprimanded him, whereupon, as the story is told, Father Rougier renounced the Church and became a landholder and planter. With the money given him by the former convict, he bought or leased several islands. But eventually he disposed of his minor holdings and acquired a long-term lease from Lever Brothers, the British soap manufacturers. I have heard that he transferred the lease to a corporation, but as he apparently continued to operate the island for many years, it was our impression that the transfer was a technicality.

Hugh Greig, the labor superintendent at Fanning Island, told me an anecdote about Rougier. The former priest started to walk around the island to inspect his domain. In the course of the journey, he had to camp out at night. "The first night," Greig related, "the hermit crabs bit him so he couldn't sleep. He built a wall of stones around his bed, and they climbed over it. The next night he slung it like a hammock between two trees, and they climbed the trees and dropped down on him. The third

night he propped himself up on a platform, with the legs of it in the water, but the crabs bridged the water with their bodies and still nipped him. Finally he caught a lot of fish and spread them all around - and as long as the fish were there, the crabs let Father Rougier alone."

His predecessors had planted 70,000 or more coconut trees, and there was room for many more. At the time, a coconut tree in bearing was estimated to yield an income of a dollar a year, and it is said Rougier planned to have a million trees. Enough actually were planted, we were told, to make a total of some 750,000, about fifty to the acre of planted area, which is still only a part of the island. However, not all of them were being harvested when we were there, and probably some of them had not yet reached bearing age.

Though it is unlikely that the income from Christmas Island ever reached the million-dollar estimate envisioned by Rougier, it did yield a tidy sum when copra was in demand. There were pearl oysters, too, in the lagoon, some of them as big as a dinner plate. We were told that "a few years ago," two pearls from that lagoon had brought $4,000.

Rougier installed machinery which eliminated some of the hand labor. He hauled the copra to his drying-sheds in his own trucks and transported it in his own ships. He issued his own stamps, which, although legally good for postage only between Christmas Island and the ports at which his ships called, were eagerly sought by collectors. Though the island was technically under the jurisdiction of the British Gilbert and Ellice Islands administration, he was virtually, if not nominally, independent, and ruled his domain without much interference from the outside world.

At his death, his interests were inherited by his nephew, Paul Emmanuel Rougier. Paul Emmanuel had flown for France in the first World War, then settled in Tahiti, where he operated a bortling works and other enterprises. He was allied by marriage to a prominent family in France and to a premier of that country. We had met young Rougier in Papeete; a handsome and affable man, who loaded our ship with fresh fruit when we sailed.

We were concerned, therefore, when we learned, after our return to Honolulu, that Paul Emmanuel Rougier was in jail. As the story reached us, his perplexities had grown out of the failure of the Chinese business firm of Kong Ah, which had large interests in the Society Islands. The repercussions of the ensuing scandal had reached France; the government had ordered an investigation and placed young Rougier in charge of it. Rougier, it appeared, had uncovered a great deal of information, some of it discreditable to highly placed persons in Tahiti, and in doing so, had made enemies.

When the government in Paris which was friendly to Rougier fell, and

a new administration was appointed for Tahiti, these enemies seized their opportunity. Some time before, three laborers at Christmas Island had stolen a launch and set out for another island. Rougier, who was on Christmas at the time, ran down to the shore to order them to return, and fired a gun as a signal. The men had not been seen since, and it was charged that Rougier's bullet had punctured their fuel tank or their water cask, leaving them to die of thirst at sea.

Rougier was charged with murder and imprisoned in Papeete pending investigation. Meanwhile, others who had taken part in the inquiry into the affairs of Kong Ah were also arrested on various charges. Rougier's case, however, could not remain entirely in the hands of the French authorities in Tahiti, since Christmas Island was not French territory. Though the United States had never relinquished its early claim to the island, it was designated on the maps as British. The Gilbert and Ellice Islands administration, representing British authority, investigated the case and exonerated Rougier. In the words of a Tahitian who wrote us the news:

"Concerning the word that you have asked me of Rougier and the governor of the city and the advocate Brault, they were all in the Iron House because of the case of Kong Ah. However, all of them are now outside of the Iron House, and the governor of the city has returned to his proper office. Rougier goes about freely, as before, and Brault leaves in this ship for France. Many people are going to France in this ship, for great is the trouble of France in these days.

"But concerning the trouble of Rougier and those associated with him, this is my thought: the root of their trouble was politics."

Rougier's enemies bided their time, as administrations in France and with them those in Tahiti, rose and fell. Word came that Rougier was again in prison, and again charged with murder. "He is led into the street with shackles on his wrists, under guard of four gendarmes, to eat his meals, and the sight is pitiful to the heart."

The case was more serious this time. There was actually a *corpus delicti*. And the story was even more bizarre than that of the earlier accusation. The headless body of a woman had been found, and later a red dress that she had worn was discovered hanging in the shop of a dealer in old clothes. The dealer confessed, according to report, that he had strangled the woman and then cut off her head "to make sure she was dead." His instinct for business led to his detection: unable to resist the temptation presented by the dress he had removed it and taken it to his shop.

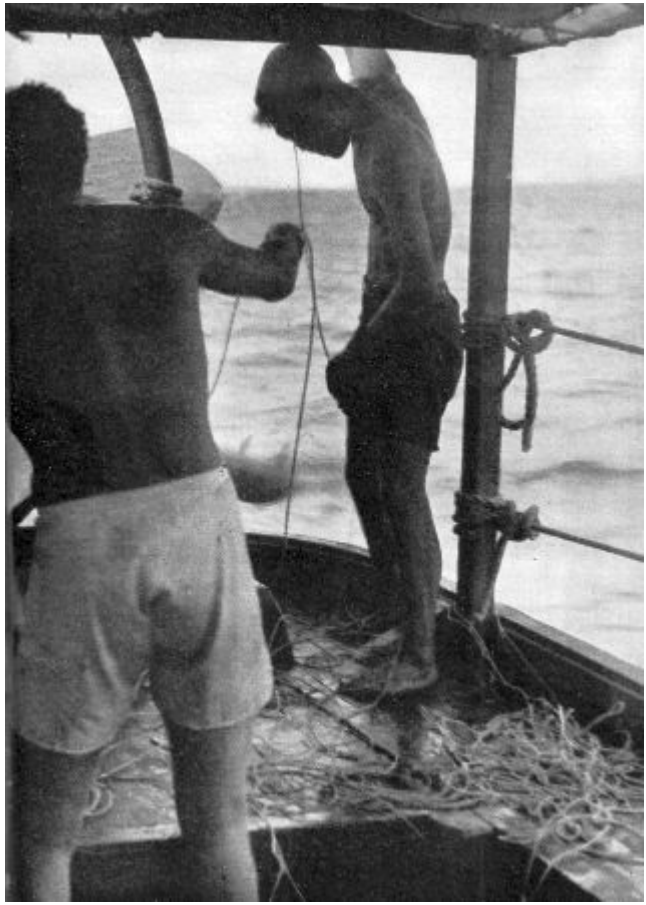
Pressed for a motive, he declared, according to the charges later preferred, that the woman had attempted to blackmail Rougier and that Rougier had hired him, for a large sum of small money," as our informant

reported, to silence her.

The case dragged on. Meanwhile hard times fell upon Tahiti as the "great trouble" in France was reflected in the colony. The administration changed, and changed again, and at one time most of the prominent citizens of Papeete, including our friend Ruru Spitz, protector of the dog Annie, were in jail.

Communications were interrupted for a time and we never learned all the details of the outcome. But still an other change of administration freed Spitz and his associates, and Rougier apparently was cleared again. We heard that he had sailed for France.

And life went on placidly at Christmas Island. The plantation truck roared over the rough roads on gasoline that had been stored there for a trans-Pacific flier who had never appeared to claim it, having been lost at sea. The trees still bore their heavy nuts; the fish leaped in the lagoon. And the price of copra was to climb again, bringing new prosperity to the island.



Aboard the sampan, those were days of sun. Hauling in a tuna over the stern, near Christmas Island.

25

Return to Pavements

THESE, AGAIN, were days of sun, steaming tranquilly over easy seas; nights· of moon, when we sat on the cabin roof talking or singing island songs.

"I'm coming back some day and settle on some uninhabited island. Henderson, maybe; civilization wouldn't catch up with us there ..."

"Or an abandoned island: Meetia, or Washington." (Washington Island, or Teraina, in the Line Islands, had been abandoned at the time, but was later reoccupied.) "Washington - ah, that's an island! Most fruitful low island anywhere - coconuts, breadfruit, bananas - and outside the hurricane belt. Planted like a tropical garden, around the fresh-water lagoon:" ("Fresh" is a technical term; the lagoon there isn't salty, but it's not potable, either.) "Everything there - why, even the houses are still standing. Ships never go there any more. Take the sampan in some day and land us, and it would be years before the owners heard of it, if ever. The difficulty would be the landing; there's no harbor and no safe anchorage. But, like Pitcairn for the mutineers, that's all in its favor. Makes it hard for any one to bother us."

"For my part," said a bachelor, "I'm going back to Rapa."

And no one really meant any of it. In reality, we could hardly wait to get home. The life of the islands is a good life for those who live there, but it isn't our life. We have been conditioned by centuries of heredity and lifetimes of experience to the kind of life that we call civilization. Most of us wouldn't fare so well in a primitive environment as one might suppose, or remain contented in it. Few of us could compete with Polynesians on Polynesian terms. The white man's prestige is derived largely from the evidences of his material culture which he brings with him. When these wore out, and the capital to replace them became exhausted, he would be at a disadvantage in an environment to which his indigenous neighbors are better adapted than he.

Ours was a jesting discussion, though it revealed an undertone of seriousness: in each participant's subconsciousness, an obscure dread of

civilization, a yearning for escape from its complexities and from the sharpness of economic struggle, a nostalgia for the peace of remote coral-fringed islands we had known. We knew very well that you can't have your poi and eat it.

We came again to Fanning Island, and its comforts, and the sweet drinking-nuts at Teanau's door.

Fanning had been a historical island, of sorts: a rendezvous of whalers, of pirates, and of mutineers, a field for bêhe-de-mer and turtle fishermen, and a refuge for residents of Hawaii in times of stress. It was off Fanning, in 1824, that the crew of the whaler *Globe* massacred the ship's officers and sailed away for the Marshall Islands, where few of them survived. It was at Fanning that the crew of the sloop *William Little* harbored, in 1832, after they had thrown the captain overboard in the hope of seizing a treasure that they did not find. And Fanning was probably one of the "American Isles" that were sought by the crew of the clipper ship *Hornet*, after she burned at sea in 1866 - sought in vain, for the men were searching in the wrong longitude.

But the men longest identified with the island were the Greigs, since William Greig, the Scotsman of Ayr who had married a sister of the king of Tongareva, took over the copra plantation at Fanning in about 1857. Greig and his partner, the American George Bicknell, both died at Fanning. Bicknell's heirs sold out to a man in Suva, and Father Rougier held their share for a time, before he leased Christmas Island. But the sons of Greig remained. One of them married Te Mu, daughter of the last queen of Manihiki. And it was his son, Hugh, and Hugh's wife, Teanau, also of high lineage in the islands to the south, who had given us some of our merriest evenings at Fanning.

Fanning, we noted, could harbor a fleet and accommodate flocks of planes, as could Christmas, which is larger. Events in recent years have enhanced the importance of the Pacific: the uses of war have brought many hitherto little-regarded islands into sharp focus, and they may be of increasing value in the pursuits of peace.

We called there only briefly, this time. And then we started on the home stretch: four more days of loafing in the sun and drinking the juice of coconuts; four more star dappled, nights of song, before we took up the threads of the life we had left or entered upon new paths.

That night we almost lost Bubbles. She was standing on the bow, barking at porpoises and wriggling her short body with every bark, when Yoshio, at the wheel, saw her lose balance and topple, tail first, into the sea. With a shout that sounded something like "Man overboard," he dashed below and shut off the engine. We all rushed aft from the focs'l and the cabin, casting the feeble beams of electric torches over the stern. In

our wake - for in those few seconds the *Islander* had already left her behind - the amber gleam of her eyes reflected the shafts of light.

"Don't back up! The propeller would cut her to pieces."

We waited. Swimming bravely with her short paws, the tiny dog overhauled the slowly drifting ship. Zimmy hung from the stern, while the rest of us, formed in a human chain, held him by the feet, and he hauled her up by the collar - bedraggled, much subdued, but safe.

In the zone of the doldrums, next day, there was still some breeze and a swell lifted the *Islander* while we lounged on the afterdeck, amusing ourselves with a contest in husking coconuts, Tuamotuan fashion, with our teeth.

One day more, and we were halfway to Honolulu, with the swell tossing the bow and spray dashing over the pilot house.

Friday, and we loafed in the sunshine again, drinking coconut water. Soon enough we'd have to go back to work - if there was any work. Soon enough we must readjust ourselves: to business clothes, and shoes, and definite times and we would renew our acquaintance with beds and proper baths and good food. (In those days we were subsisting mainly on beans, which had been bought in Tahiti. They were small beans, dark in color, and very hard. I suspect that Ernest neglected to soak them before cooking them. For the longer he boiled them, the harder they became.)

Saturday, and we crowded the motor to ten knots, eager for sight of home.

At dawn of Sunday, the three peaks of Hawaii stood on the horizon, soon to be blotted out by the glare of sun light. We glimpsed the great shattered dome of Maui's House of the Sun and, a little later, the worn-down, truncated cone of Lanai. At the wheel I chanted a canoe-voyagers' song, while the crew cleaned up the ship for the arrival.

Molokai loomed, long and reddish-brown; Oahu tawny and rose and green, the gracious buildings of Honolulu lifting from flower-hung streets. Sampans and launches swarmed around us, bearing friends and kinfolk loaded with leis; the pier was thronged with more welcomers. I shall carry long in memory the sight of the elderly and dignified Dr. Horace Gregory, then director of the museum, leaping up and down like a boy on the edge of Pier 2.

Honolulu seemed to us sadly over-civilized: the rush and bustle beat upon our nerves and confused our minds. Weeks passed before shoes no longer felt strange to our feet and the traffic ceased to disquiet us. We had returned to learn again the complexities of a life that in those months at sea and on the reefs and isles had come to seem unreal.

The voyage soon fell into its place as an interlude between other experiences. But one who has lived for even a short time in another world

does not emerge from it entirely as he was before. Returning, one looks upon the culture of our race with a somewhat detached point of view and with a new appreciation of both its defects and its achievements.

This is the world into which we were born and in which we were reared. This is where our personal ties are. It is our place. But we need not forget utterly the coiling incense of the fires of coconut husk and the tones of the chant, the rhythms of the dance before the huts of thatch, and the kindly ways of those who were, for a season, our neighbors and our hosts. There is a graciousness in their life that might well be introduced into ours, and there was a healthy hardness in the life of our own ship's company, afloat and ashore, that we might do well to retain. In this harsh and troubled world, a people can not afford to go soft.

This is our world; we bear our part in it, and gladly. But we carry within us a, little of the islands, too. I think we are the better for that experience.

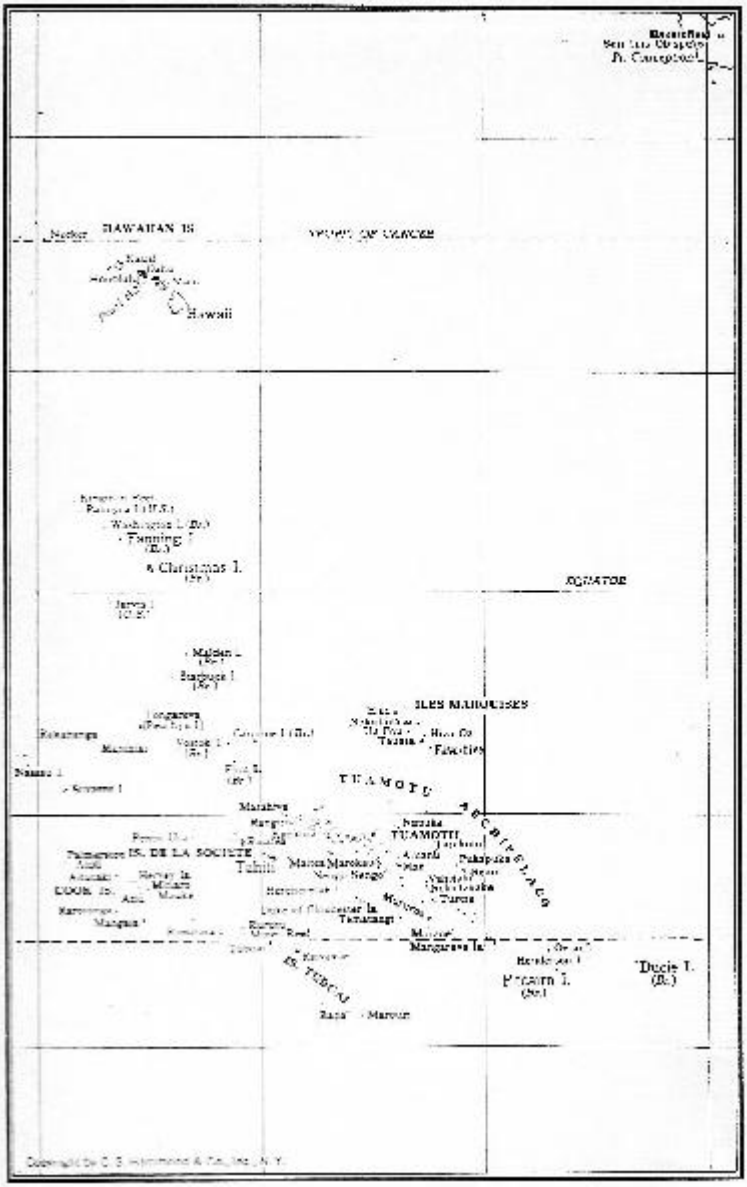
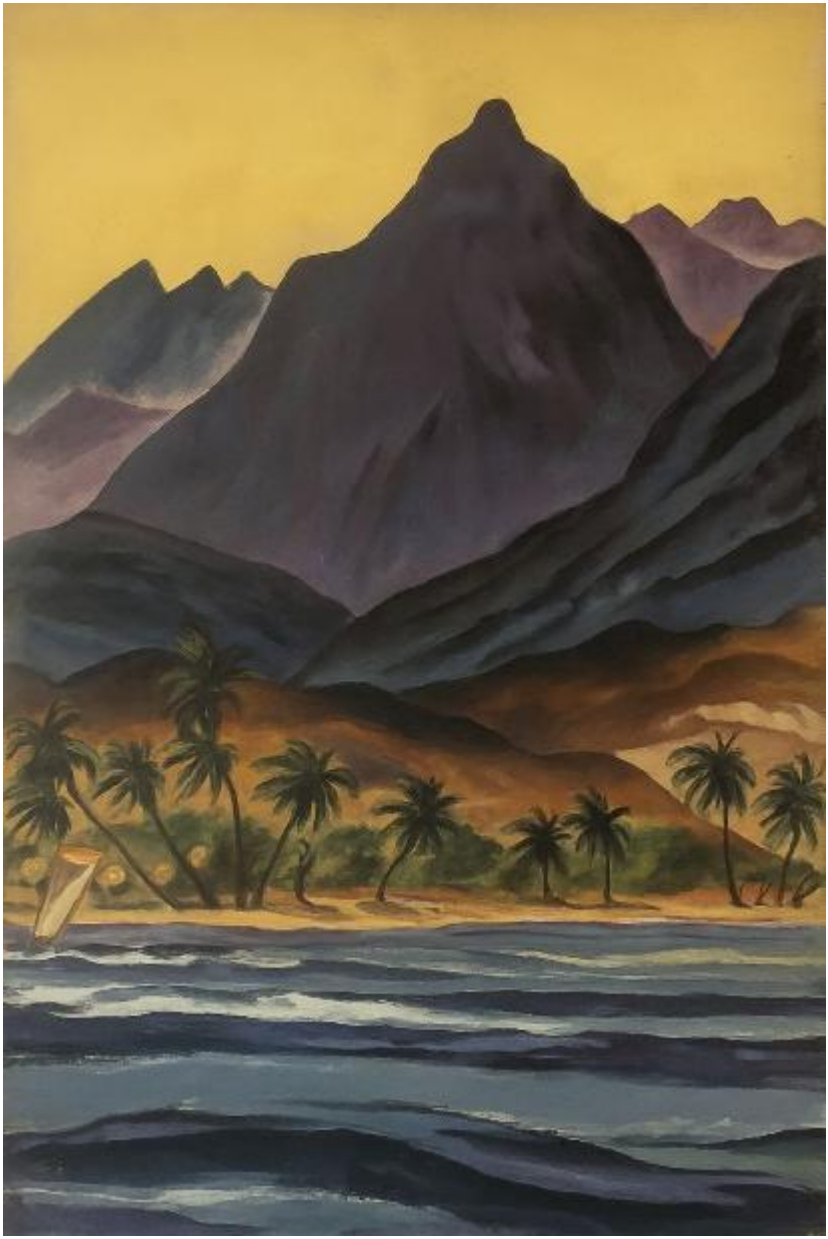
Again a letter comes over the salt leagues of the Pacific. I fancy I can catch the smell of the copra in the schooner that carried it to Tahiti from the far corner of the Tuamotu where it was written. It is from Tauria, my brother by the rite of adoption in the Land of the Puka Trees. The Tuamotuan words are simple and direct:

"May you have life, Pari Mokio-ariki. It is I, Tauria, who write this. There is no news at Tepuka Maruia. Deep is the love of all of us for you, and this is my thought: send me ... "

Money? Trinkets? A ring for his sweetheart's finger, a knife for himself, any gadget from among the wonders of the white man's world?

No. Tauria asks only this:

"Send me seeds of fragrant flowers to make the country belonging-to-you-and-me beautiful."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